LIBRARY

HEALTH IN NORTH-WEST CHESHIRE

WITH STATISTICS,

Presented to the Borough of Bebington
and the Urban Districts of
Hoylake, Neston and Wirral

AS THE

ANNUAL REPORT

FOR 1938

BY

J. B. YEOMAN, M.D., F.R.C.S. (Edin.) D.P.H.

of the Middle Temple, Barrister-at-Law,
Medical Officer of Health.

C. N.
MIN. OF H
C 12 JAN 40

HEALTH IN
NORTH-WEST CHESHIRE

WITH STATISTICS,

Presented to the Borough of Bebington
and the Urban Districts of
Hoylake, Neston and Wirral

AS THE

ANNUAL REPORT

FOR 1938

BY

J. B. YEOMAN, M.D., F.R.C.S. (Edin.) D.P.H.

of the Middle Temple, Barrister-at-Law,
Medical Officer of Health.

CHESTER:
W. H. EVANS, SONS & CO. LTD., PRINTERS, BANK PLACE, FOREGATE STREET.

> While such reports, like the official reports of the Central Department, must contain the prescribed statistics and routine tabulations, they provide ample opportunity and scope for the Medical Officer to guide his authority and the public in the appropriate directions of advance.
>
> (*Newman*).

TABLE OF CONTENTS.

Pages.

Administrative Staff ... ... — 3

District.

North-West Cheshire Combined ... ... 7— 36

Bebington Urban ... ... 37— 80

Hoylake Urban ... ... 81—105

Neston Urban ... ... 106—126

Wirral Urban ... ... 127—148

ADMINISTRATIVE STAFF.

Medical Officer of Health North West Cheshire Combined (Public Health) Area: J. B. Yeoman, M.D., F.R.C.S. (Edin.), D.P.H., of the Middle Temple, Barrister-at-Law.

Clerk: Andrew Prince, to July, 1938.

G. Evans, from July, 1938.

Orthopædic Surgeon: T. Hartley Martin, M.B., B.Ch., at Bebington Clinic.

Gynæcologist: Morris Datnow, M.D., F.R.C.S. (Edin.), at Bebington Pre-Maternity Clinic.

Pathologists: R. Howard Mole, M.D., at Isolation Hospital.

J. Morrison Ritchie, M.B., B.Ch. (Birkenhead Municipal Laboratory), at Clatterbridge (County) General Hospital. Dr. Taylor Chadwick for Hoylake.

Aural Surgeon: Philip Garson, F.R.C.S. (Edin.), at Bebington Clinic.

BEBINGTON.

Chief Sanitary Inspector: E. V. Crapper.

District Sanitary Inspectors: E. M. Dutton (Housing).
A. Davidson (Meat & Food).
A. Reid (House Drainage).

Pupil Inspectors: E. H. Trafford, C. H. Crawford, T. H. Owen

Clerk : Miss K. Davies.

Shorthand Typist : Miss M. Brodrick.

One Van Driver.

One Disinfector.

One Drain Tester.

Senior Health Visitor : Miss A. Owen.

Senior Assistant Health Visitor : Miss V. R. Ellerington.

Assistant Health Visitors : Miss M. Owen, Miss F. E. Harris.

Clerk : Miss G. Bowers.

HOYLAKE.

Sanitary Inspector : J. W. Hocking.

Assistant Inspector : J. McKeown.

Clerk : F. K. Harrop.

NESTON.

Sanitary Inspector : G. W. Yearsley, to May, 1938.
A. E. Prince, from July, 1938.

WIRRAL URBAN.

Sanitary Inspector : L. Gill, to August, 1938.
G. H. Williams, from October, 1938.

Clerk & Pupil : R. Colenso.

Clerk : H. R. Bentley.

All the officers employed are fully qualified for the duties they perform and are the holders of the recognised qualifications for the offices they hold. Each Sanitary Inspector holds the certificate of the Royal Sanitary Institute and the special certificate for proficiency in the Inspection of Meat. The Health Visitors have the qualifying certificate required by the Ministry, the certificate of the Central Midwives' Board, and several are State Registered Nurses.

Neston, Wirral, Cheshire,

28th September, 1939.

The late appearance of this Report is due to clerical and other difficulties. Not only is it late but it is also the last report which I shall make. Young energetic Medical Officers have been appointed, and full of enthusiasm they will without a doubt raise the standard of Health Administration in the area. To the Councils of the areas which have invariably accepted the advice tendered by me, to the Sanitary Inspectors and their Staffs, and to the Engineers and Surveyors with whom the work has brought me into intimate association, I tender my thanks.

J. B. YEOMAN.

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

https://archive.org/details/b29915454

North-West Cheshire Combined District

Statistics and Social Conditions of the Area.

AREA.—The area is 32,212 acres or practically 50.3 square miles.

POPULATION.—The population at Mid-Summer, 1938, is estimated by the Registrar-General to have been 85,224. This is an increase of 2,437 on the population estimated in 1937.

SOCIAL CONDITIONS.—There is no marked alteration on the Social Conditions recorded at the Census in 1931. They may be summarised as industrial along the Mersey, residential along the Dee, with agricultural and residential groups in the centre of the Peninsula.

POPULATION.—The natural increase (that is the excess of births over deaths) of the population is shown in the following table (1921-38).

	Year.	Population.	Natural Increase per 1,000 population.
	1921	79,088	11.6
	1922	79,873	8.5
	1923	81,572	9.9
	1924	84,777	8.1
	1925	87,417	7·3
	1926	95,308	8.0
	1927	101,526	6.8
	1928 Part of year	95,195 (91,795)	7.0
	1929	93,412	6.4
	1930	94,893	7.8
	1931	96,411	7·4
Area altered 1st April	1932	99,061	5·9
	1933	96,180	4.8
	1934	98,730	5·9

	Year.	Population.	Natural Increase per 1,000 population.
	1935	101,560	5·09
	1936	104,220	5·2
Area altered by omission of Ellesmere Port Urban District.	1937	82,787	4·9
	1938	85,224	4·7

Natural Increase of Population (*i.e.*, excess of Births over Deaths) 1921-1937, England and Wales.

Year.	Per 1,000 Population.		Year.	Per 1,000 Population.		Year.	Per 1,000 Population.
1921	10.3	...	1927	4·3	...	1933	2.1
1922	7.6	...	1928	5·0	...	1934	3·0
1923	8.1	...	1929	2.9	...	1935	2.9
1924	6.6	...	1930	4·9	...	1936	2.7
1925	6.1	...	1931	3·5	...	1937	2.5
1926	6.2	...	1932	3·3			

Extracts from Vital Statistics, 1938.

Live Births.

The births numbered 1,327 : males 674, females 653 ; 1,288 were registered as legitimate, and 39 as illegitimate. **The birth rate was 15.57** per 1,000 of the population.

The 1938 birth rate of England and Wales was 15.1 per 1,000 of the population. It was 0.2 above that of 1937, and 0.7 above that of 1933, the lowest recorded.

The fall in the birth-rate is due to restriction of the size of families and to a certain extent to the greater age at which women marry. It is not confined to any one section of the community but shows a steady decline.

The highest rates were recorded in Wirral, Bebington and Neston. The rate in Hoylake was 3.25 below that of England and Wales.

For purposes of comparison the Registrar-General's figures are quoted.

	Birth Rate per 1,000 Total Population Live Births
England and Wales	15.1
126 County Boroughs and Great Towns including London	15.0
148 Smaller Towns with estimated resident population of from 25,000—50,000 at the 1931 Census	15.4
London (Administrative County)	13.4
Administrative County of Chester Birth Rate (1937)	14.2

Still Births.

The still births were 51 in number, giving a rate of 37.0 per 1,000 total (live and still) births or 0.59 per 1,000 of the population.

The Registrar-General's figures :—	Rate per 1,000 of population
England and Wales	0.60
126 County Boroughs and Great Towns including London	0.65
148 Smaller Towns (1931 Census adjusted populations 25,000—50,000)	0.60
London	0.48

Deaths.

926 deaths were recorded ; 450 males and 476 females.

The death rate was 10.86 per 1,000 of the population. It was lowest in Bebington and Wirral. It was highest in Neston and Hoylake.

The Registrar-General's figures are quoted :—

ANNUAL DEATH RATE PER 1,000 POPULATION.

	All causes.	Enteric Fever and Paratyphoid	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.
England and Wales ...	11.6	0.00	0.00	0.04	0.01	0.03	0.07	0.11
126 County Boroughs and Great Towns including London	11.7	0.00	0.00	0.05	0.01	0.03	0.07	0.10
148 Smaller Towns (1931 adjusted Populations 25,000—50,000) ...	11.0	0.00	0.00	0.03	0.01	0.02	0.0 6	0.11
London	11.4	0.00	0.00	0.06	0.01	0.03	0.05	0.06

Registrar-General's Memorandum on Comparability factor for adjusting the Local Death Rates of 1931 and subsequent years.

If the population of all areas were similarly constituted as regards the proportions of their sex and age group components, their crude death rates (deaths per 1,000 population) could be accepted as valid comparative measures of the mortalities experienced by the several populations.

In practice, however, populations are not thus similarly constituted and their crude death rates fail as true comparative mortality indexes in that their variations are not due to mortality alone, but arise also from differences in their population constitution, the two elements being combined in indistinguishable proportions. In order to isolate the mortality factor it is first necessary to identify and remove the population variable.

One of the methods commonly adopted for this purpose is to select a set of mortality sex-age rates as a standard and to ascertain the hypothetical population death rates yielded by applying the standard mortality to the appropriate sex-age sections of the populations under review ; variations in the hypothetical death rates thus produced can only arise from differences in population constitutions and they thus provide a means of assessing the extent to which the ordinary crude death rates should be modified in order to provide a valid mortality comparison as between one population and another.

For the present purpose, the average mortality rates experienced in England and Wales during the three years 1930/2 divided into 11 sex-age groups have been adopted as the standard and have been applied to the corresponding sex-age groups in the 1931 Census population of every Borough, Urban District and Rural District in the country. The adjusting factor now supplied in respect of a given area represents the ratio of the resulting death rate for the national 1931 census population to the similarly obtained hypothetical death rate for the said area. The factor may be said to represent the population handicap to be applied to the area and, when multiplied by the crude death rate experienced in the area, modifies the latter so as to make it comparable with the crude death rate for the country as a whole or with the similarly adjusted death rate for any other area. Strictly, the adjusting factor applies only to death rates experienced in the year 1931 on which the several population handicaps have been measured, but population constitutions change relatively slowly, and save in exceptional circumstances, the 1931 factor may be used for practical purposes until fresh population constitutions are available from the next Census.

The utilization of the adjusting factor may be illustrated by applying it to Bournemouth County Borough and Dagenham Urban District as examples of somewhat extreme types of population.

	Bournemouth C.B.	Dagenham U.D.
1933 deaths	1,618	622
1933 estimated population	115,200	95,550
1933 crude death rate	14.0	6.5
Comparability Factor	0.75	1.53
1933 adjusted death rate	10.5	9.9
Ratio to national death rate in 1933 (viz. 12.3) of—		
Local crude death rate	1.14	.53
Local adjusted death rate	.85	.80

Thus, whereas by the crude death rate comparison the mortality of Bournemouth appears to be 14% *above* the national average, by the adjusted comparison it is seen to be 15% *below* ; the apparent excess in the first comparison being nothing more than a reflection of the elderly nature of the Bournemouth population.

Again, the comparatively youthful nature of the Dagenham population produces a crude death rate for 1933 which is but 53% of that of England and Wales, though the mortality experienced is shewn by the adjusted comparison to be more like 80% of the national figure.

Comparing Bournemouth directly with Dagenham the crude death rates are seen to be in the ratio of 14.0 to 6.5, a meaningless comparison in respect of the relative mortalities experienced which are expressed by the adjusted figures as 10.5 and 9.9 respectively.

The Area Comparability Factors supplied for the districts in the North-West Cheshire area are :—

Bebington	1.11
Hoylake	.92
Neston	1.03
Wirral	1.01

TABLE FOR NORTH-WEST CHESHIRE COMBINED DISTRICT

ANNUAL DEATH RATE PER 1,000 POPULATION.

	All Cases.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Violence.
North-West Cheshire Combined District	10.86	0.00	0.00	0.04	0.00	0.01	0.17	0.09	0.50

Causes of Death.

A new " Short list of Causes of Death " has been adopted by the Registrar-General, after agreement with the Ministry of Health, and the deaths in the Combined District arranged in this list are shown in the subjoined Table.

	All Causes.	M.	F.	Total
1.	Typhoid and Paratyphoid Fevers	0	0	0
2.	Measles	4	0	4
3.	Scarlet Fever	0	0	0
4.	Whooping Cough	0	1	1
5.	Diphtheria	5	10	15
6.	Influenza	6	2	8
7.	Encephalitis Lethargica	2	1	3
8.	Cerebro-spinal Fever	1	0	1
9.	Tuberculosis of Respiratory System	20	22	42
10.	Other Tuberculous Diseases	2	2	4
11.	Syphilis	1	1	2
12.	General Paralysis of the Insane : Tabes Dorsalis	1	0	1
13.	Cancer, Malignant Disease	69	78	147
14.	Diabetes	9	9	18
15.	Cerebral Hæmorrhage	18	26	44
16.	Heart Disease	119	150	269
17.	Aneurysm	0	0	0
18.	Other Circulatory Diseases	26	42	68
19.	Bronchitis	8	5	13
20.	Pneumonia (All forms)	30	26	56
21.	Other Respiratory Diseases	5	3	8
22.	Peptic Ulcer	9	0	9
23.	Diarrhœa (under 2 years)	4	1	5
24.	Appendicitis	3	4	7
25.	Cirrhosis of Liver	1	2	3
26.	Other Diseases of Liver, etc.	0	2	2
27.	Other Digestive Diseases	17	6	23
28.	Acute and Chronic Nephritis	6	6	12
29.	Puerperal Sepsis	0	0	0
30.	Other Puerperal Causes	0	4	4
31.	Congenital Debility, Premature Birth, Malformations, etc.	18	13	31
32.	Senility	7	6	13
33.	Suicide	5	5	10
34.	Other Violence	25	8	33
35.	Other Defined Diseases	29	41	70
36.	Causes Ill-defined or Unknown	0	0	0
	Diarrhœa 2 years and over ... — ...	0	0	0
	Totals - -	450	476	926
	Special Causes (included in No. 35 above)			
	Smallpox	0	0	0
	Poliomyelitis	0	0	0
	Polio-encephalitis	0	0	0

The seven principal zymotic diseases (Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever (Typhus, simple continued, and Enteric), and Diarrhœa) accounted for 2.15% of the total deaths; Tuberculosis (all forms) for 4.9%; Cancer 15.8% and Heart Disease for 29.0%.

Expressed in rates per 1,000 of the population the figures are :—

Zymotic diseases ...	.23	Cancer ...	1.7
Tuberculosis ...	.5	Heart disease	3.1

Corresponding figures for England and Wales :—

Tuberculosis (all forms) ...	0.63
Cancer	1.66

North-West Cheshire Public Health area is a healthy one, and yet in the thirteen years 1926-38, 1,607 deaths from cancer were recorded and 792 from tuberculosis.

DEATHS FROM PUERPERAL CAUSES.

	Deaths.	Rate per 1,000 Total (Live & Still Births).	Rate per 1,000 Live Births.
Puerperal Sepsis	0	0.00	0.00
Other Puerperal Causes ...	4	2.90	3.01
Total ...	4	2.90	3.01

DEATHS FROM PUERPERAL CAUSES—ENGLAND AND WALES.

	Rate per 1,000 Total (Live and Still Births).	Rate per 1,000 Live Births.
Puerperal Sepsis	0.86	0.89
Other Puerperal Causes ...	2.11	2.19
	2.97	3.08

The Corresponding Figures in 1937 were 3.01 and 3.23.

PERCENTAGE OF TOTAL DEATHS.

	Causes of Death Certified by Registered Medical Practitioners.	Inquest Cases.	Certified by Coroner after Post-Mortem No Inquest.	Uncertified causes of Death.
North-West Cheshire ...	93.5	5.7	1.7	0.3

The percentage of deaths of persons dying in Public Institutions was 28.1

Death Rate of Infants under 1 year of age.

	Number.	Rate
All Infants per 1,000 live births	56	42
Per 1,000 legitimate live births	56	43
Per 1,000 illegitimate live births	—	—

The Registrar-General's Table is as follows :—

	Rate per 1,000 Births.
England and Wales	53
126 County Boroughs and Great Towns, including London	57
148 Smaller Towns (1931 adjusted populations 25,000—50,000)	51
London	57

The Infantile Mortality Rate was 4 per 1,000 live births below that of 1935 which was the previous lowest recorded.

The infantile mortality figure is accepted as an index of the health conditions of a community. Our infantile mortality rate was lower than in England and Wales, County Boroughs, Smaller Towns and London.

Year,	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938
Deaths from Measles (all ages) ...	12	2	4	1	7	5	1	10	0	4
Deaths from Whooping Cough (all ages) ...	5	5	13	5	1	7	0	6	6	1
Deaths from Diarrhœa (under two years of age)	10	6	9	6	7	2	1	6	2	5

REGISTRAR-GENERAL'S TABLE.	Rate per 1,000 Live Births. Diarrhœa & Enteritis (under 2 years).
England and Wales	5·5
126 County Boroughs and Great Towns, including London	7.8
148 Smaller Towns (1931 adjusted populations 25,000—50,000)	3.6
London	13.1

In the North-West Cheshire Combined Area, the diarrhœa rate was 3.8 per 1,000 live births.

General Provision of Health Services in the Area.

1. PROFESSIONAL NURSING in the Home :—

(*a*) General.—In every one of the large centres of population there is a district nursing organisation which provides a trained nurse. Subscriptions from charitable persons, and small charges for services rendered, serve to support the organisation. No scheme of co-ordination exists with the work of the Local Authorities.

(*b*) For Infectious Diseases.—There are no arrangements for nursing infectious cases with the exception of Pneumonia. In each district steps have been taken or are contemplated to secure home nursing for sufferers from Pneumonia in accordance with the Ministry's Circular.

" Where adequate nursing in the home is available, admission to an institution primarily for nursing attention can often be avoided, as also can the unnecessary retention in hospital of patients who have reached a stage at which medical attention in the home is sufficient if proper nursing also is available there." (Ministry of Health Report 1934-35).

2. MIDWIVES.—The Midwives' Act, 1936, is administered by the County Council and an adequate number of state registered midwives has been allocated to each area.

3. LABORATORY FACILITIES.—Chemical work was formerly carried out by the County Analyst at the expense of the County. This arrangement has been terminated and it is now left to each district to select its own Analyst. The work consists of analysis of water and milk samples. Food and drugs throughout the area are submitted for analysis to the County Analyst. The samples are taken by County officers. Under the report to each constituent authority of the Combined District, a table is given of the number and nature of samples taken and the results of analysis. The Clinical Research Association and Manchester and Liverpool Laboratories are used for investigation of disease at the public expense. The Municipal Laboratory, Birkenhead, and two private Laboratories are also employed.

4. LEGISLATION IN FORCE.—A list of local and general adoptive acts and bye-laws is given under each district report.

5. HOSPITALS.—There were no changes in the hospital services, public or voluntary, whether within or without the area, which are used by the inhabitants of the area.

On 1st April, 1935, the Infirmary at the Wirral Institution was appropriated for Public Health Purposes and has been named the Clatterbridge (County) General Hospital.

TUBERCULOSIS.—The County Council is a partner in the Joint Sanatorium at Market Drayton. It has also an Institution at Wrenbury and pays for beds in the Sanatoria of other authorities, and in Leasowe and Heswall Open Air Hospitals for Children.

MATERNITY.—A maternity hospital is provided by Messrs. Price in Bromborough, for the use of the wives of their employees. The County Council provides a well equipped Maternity Hospital, separate from other buildings, at Clatterbridge, and retains the services of a Consultant for Gynæcological work. This contains 19 beds and 19 cots. An innovation in the year 1936 is worthy of mention, viz.: the introduction into general use of the Minnitt Apparatus for lessening pain. It has been used in a very large number of the cases of motherhood with uniform success. Dr. Minnitt has himself supervised the selection of the instruments. The British College of Obstetricians and Gynæcologists has now given its blessing to the employment of this simple method of obtaining relief from pain. The suggestion of the College is that midwives should be allowed to use the Minnitt Apparatus in confinements where a medical examination of the patient has been made to ensure the absence of contraindications to its use. It is easy to employ and safe, and where it has been used it is very noticeable that there is complete absence of the exhaustion and debility which so frequently followed the birth.

FEVER.—The whole area is served by the hospitals of the Wirral Joint Hospital Board. These hospitals also admit infectious cases from the Chester Rural District. The main infectious diseases hospital is situated at Clatterbridge, and has an accommodation of 100 beds, which can be extended to 116.

Provision has been made to receive Encephalitis patients.

Under certain conditions beds may be available for Measles and for Whooping Cough.

Major Duncan Campbell, F.R.I.B.A., Architect to the Joint Hospital Board, supplies the following details of buildings which have been recently erected and were formally opened in 1937.

The Isolation Hospital, Clatterbridge.

New Nurses' Home.

The Home provides accommodation for 25 Sisters and Nurses in addition to a self-contained suite for a Sister-in-charge comprising Sitting Room, Bed Room and Bath Room.

One wing on the ground floor contains a Dining Room, 25ft. x 17ft., a Servery fitted with a hot plate, sinks, china cupboards, etc., and a small larder, but no kitchen is provided, as it is intended that all meals shall be cooked in the existing Central Kitchen.

A Nurses' Sitting Room and a Lecture Room, separated by a moveable Screen, can be thrown together if necessary, forming one room 50ft. x 17ft., with Cloak Rooms, Telephone Room and a small Waiting Hall, fill the central area of the ground floor.

The remaining wing contains a Sisters' Sitting Room in addition to the suite for the Sister-in-charge before mentioned.

In addition to the usual Lavatory accommodation, small rooms are provided for Hair Washing and Laundry Work.

All floors are of concrete, covered in the case of the Bed Rooms with linoleum, the upper corridors with cork, the lower corridors with granwood and the Sitting Rooms, etc., on the ground floor, with wood blocks.

The exterior is faced with Buckley Junction rustic bricks with Storeton Stone dressings and the roof covered with Tyrch slates.

The windows are of the sliding sash type and all Bed Rooms are fitted with built-in furniture and basins with hot and cold water.

Heating is by low pressure hot water.

New Cubicle Block.

The block contains 12 cubicles each 12ft. x 10ft. x 10ft. high, divided by glazed partitions and all overlooked from a central Duty Room and approached by an open sided covered way.

The floors of the Cubicles are finished in granwood, and of the covered ways in asphalt.

The external facings are Buckley Junction rustic brick and the roof covered with Tyrch slates to match the new Home and heating is by low pressure hot water.

Pensby.—At Pensby there is a hospital with 12 beds for convalescent scarlet fever patients.

The CLATTERBRIDGE ISOLATION HOSPITAL is, in fact, an independent administrative unit interpreting its function as the admission to hospital of any persons suffering from certain diseases coming into the category of "notifiably infectious." No real harm arises from this interpretation if the hospital be adequate in normal times for the population which it serves, but as soon as the proportion of infected cases passes to what may be termed the epidemic level difficulties arise. Not so many years ago the view of the Isolation Hospital, both by the general public and the medical profession, or by the general public led by and in deference to medical opinion, was that of an institution where infectious cases could be segregated "to prevent spread of infection." To-day the position will be best elucidated by quoting the following from the recent edition of what is regarded as one of the most authoritative works on the subject :—

> The policy of the isolation of sick persons within a community is based on a similar failure to realise that the clinical picture

> provides a very incomplete description of the true state of affairs. If isolation removed from the community the whole, or even the great majority of the infected individuals, it might be expected to exert a considerable influence on the prevalence of an infective disease, but if the ratio of latent or atypical infections to clinically-recognisable cases is high, we cannot hope to effect any marked reduction in the morbidity rate by removing to hospital those cases which exhibit the typical stigmata of the disease. We may, indeed, effect a smaller reduction in the total infective material than the ratio of isolated to non-isolated among infected individuals would suggest ; for the sick person would, in any case, move less freely among his fellows than the apparently healthy carrier. As in the case of quarantine, we should expect a policy of isolation to be successful only in exceptional circumstances, when the recognizable cases form a very high proportion of the total infected, and when the total mass of infection to be dealt with is small. Once a given infectious disease has assumed an endemic-epidemic prevalence within a herd, we should expect no appreciable result from the isolation hospital, so far as a reduction in morbidity is concerned. It is interesting to find that the expectations based on bacteriological and experimental findings are borne out by administrative experience. Thus an attempt has been made, by an analysis of the available records, to answer the question : Does hospital isolation have any effect upon the incidence of scarlet fever ?—All applications of the calculus of correlations have wholly failed to bring out any connection whatever between the incidence rate of scarlet fever and the extent of isolation. The value of the isolation hospital must apparently be judged by the benefit which it confers on the sick within its walls ; for it would seem to have little effect on the health of the community as a whole.

The 1937 outbreak of Diphtheria and Scarlet Fever in epidemic proportions very soon tried the capacity of the hospital to the utmost or beyond its available beds. It is to be congratulated on never having failed speedily to admit any diphtheria cases, but scarlet fever cases had to remain in many instances in their own homes. This latter condition was quite natural in the circumstances, but as the hospital is an independent entity, little discrimination could be exercised in choosing cases for admission. Selection of cases could have been made in accordance with the recognised conditions which make hospital isolation and treatment advisable, namely : where the case is a serious one ; when other members of the family are engaged either at home or outside at dairy work, shopkeeping, dressmaking, laundry and other social occupations. Consideration should be given to the facilities for isolation at home, other children or over-crowding, availability of home nursing prior to the admission of Scarlet Fever patients in times of stress. In some instances much hardship was incurred owing to compulsory abstention from work under the regulations of certain firms, with consequent non-payment of wages.

The time has certainly arrived when a conclusion should be come to in question of whether or not sums of public money are being wasted in the attempted treatment of all cases of Scarlet Fever in hospital. As long as ten years ago the Medical Officer of Health of a town with a quarter of a million inhabitants wrote :—" I regard removal of scarlet fever patients to hospitals as a convenience rather than as a public health measure of much public health importance."

Reports of medical officers show that in many districts removal has ceased to be a matter of routine.

The following extract is taken from the Report on " Some Administrative Aspects of Scarlet Fever," prepared by a Medical Officer of the Ministry of Health :—

> The number of Scarlet Fever patients, however, who clinically now require the benefit of hospital treatment form a very small proportion of those attacked. Never was there less epidemiological evidence nor less clinical necessity for the hospital isolation and treatment of Scarlet Fever patients than there is to-day, and yet the general hospital isolating rate for the country as a whole was never so high as it is at the present time.

At a recent meeting of the Society of Medical Officers of Health, the following resolution was unanimously carried :— " That the Council of the Society should represent to the Board of Education and the Ministry of Health that the recommendations contained in their memorandum of 1927 on " Closure and Exclusion from School " are no longer in accordance with recent advances in epidemiological knowledge, and that the memorandum be redrafted and revised accordingly."

In at least one County Borough the return of " Contacts to school has not produced any unhappy results, and has not precipitated an epidemic."

The Medical Officer of that Borough writes concerning the Contact :—

> " Now if he goes back to school he mixes only with his peers, and that mixing takes place usually in a well-ventilated room, where infection is less likely to spread than in a stuffy home. After school he plays with the same children. Thus, whether he goes to school, or whether he stays at home, he will run the risk of infecting his own age-group. Only if he stays at home will he mix with the toddler group to any extent."

The final report of the Departmental Committee on the Cost of Hospitals which was issued a few days ago deals, among other matters, with the subject of Isolation Hospitals. Avoidance of the erection of small isolation hospitals is emphasised, but no standard minimum is laid down. Consideration of the area served by the Clatterbridge Isolation Hospital and the number of beds provided leads me to the conclusion that the area is eminently suitable and the beds provided are commensurate with the requirements of conditions not outside the ordinary. The site and lay-out of the hospital conform to modern requirements. Laundry, ambulance garage, boiler house and disinfector are provided. The cubicle block, as in the report, consists :—

> of a number of entirely separate single-bed wards. A cubicle block is used for cases of double infection and doubtful diagnosis and for those diseases, of which only small numbers of cases are admitted. Unlike the other ward blocks, a cubicle block may be used for the reception of patients suffering from different diseases.

It is anticipated that at an early date a resident assistant Medical Officer will be appointed and application will be made to the General Nursing Council for recognition of the hospital as a training school for nurses in " Fevers." Ear and Throat troubles occurring in the patients are treated by the Consulting Aurist, whose close association with the hospital augurs well for good results.

For five years a " Schools Epidemics Committee " has been collecting data and analysing records of sickness in a large number of schools. That tentative conclusions only can be drawn from the limited experience in time and scope is a warning given in the published report.

The attack rate for influenza was identical for girls and boys, but the girls had a rate of 22.6 per cent. compared with 5.6 for the boys. Gastro-intestinal disorders showed their highest incidence in both sexes in the Christmas term. The influence of accidents among boys was heaviest in the Christmas term, whether " due to intensified activity as a result of good health, and how much to the fact that more football, particularly Rugby, is played at this season, it is impossible to say." Over 90 per cent. of all cases of infectious disease in boys occurred in the first two terms, and among girls the incidence was heaviest in the Lent term with 60 per cent.

Evidence is accumulating that it is possible to acquire an immunity to measles by exposure to infection during an epidemic without showing signs of clinical disease.

> " In view of the fact that, even when left to its own devices, scarlet fever has never in our experience attacked more than 3.4 per cent. of the ' not-previously attacked ' in any outbreak, we do not believe that the advantages of artificial immunisation against scarlet fever in a public school are sufficient to compensate for the labour and disability incurred during the process."
>
> " Examination of the record cards of our entire population at the beginning of the inquiry in 1930 revealed the fact that just over half the boys and rather under half the girls had had their tonsils removed ; a yearly census thereafter showed that these proportions were rising slowly, until by the end of 1934, they had increased by nearly six and seven per cent. respectively."

It was obviously important, in the public interest, to discover, if possible, whether this mass attack upon one of the normal structures of the body was justified. We studied the incidence of various nasopharyngeal infections such as influenza, colds, sore throats, etc., in boys and girls with and without tonsils, and found no significant difference in the attack rates on the two groups, and certainly no evidence that tonsillectomy resulted in a diminished incidence of the infections under discussion.

> Though realizing the value of the operation in carefully selected cases, we have grave doubts as to whether the majority of tonsillectomies performed to-day are the result of true discrimination, rather than of routine ritual.

Boys suffered twice as frequently as the girls from Otitis Media ; two and a half times as frequently from pneumonia ; and eleven times as frequently from acute rheumatism. Girls suffered more severely than boys from Appendicitis, with 50 per cent. more cases and 10 per cent. more operations.

The summary of the observations in Scarlet Fever are of peculiar interest and importance in Wirral, with its present epidemic prevalence.

> Only 22.4 per cent. of outbreaks among the boys and 16.7 per cent. among the girls give an attack rate of 1.0 per cent. or over.
>
> The disease showed little tendency to spread widely in any school, the largest attack rates ever reached being 3.5 per cent. and 4 per cent. Boys reported three times as many cases as girls.
>
> COMPLICATIONS.—Only 6 cases of otitis media and 2 of pneumonia were reported among the boys, but this rate may be too low owing to lack of information about hospital cases ; no complications were reported among the girls.

Vaccination against Small Pox.

A consideration of the number of children vaccinated in the area during three recent years shows that out of 2,933 births only 1426, i.e., less than half had been vaccinated. Conscientious objectors obtained certificates of exemption in 692 instances. Subtracting deaths, removals and postponements 291 were not accounted for and presumably should be added to the unvaccinated.

A question recently asked in Parliament elicited the information set forth in the following table :—

1. Public Vaccinations and Re-vaccinations (England and Wales).

Year ended 30th Sept.	Public vaccinations	Re-vaccinations
1932	207,543	16,624
1933	189,857	9,628
1934	184,137	14,802
1935	183,917	9,267
1936	176,618	11,434

2. Net Expenditure on Vaccination of all local authorities (England and Wales).

	£
1931-32	146,714
1932-33	136,365
1933-34	128,339
1934-35	125,646
1935-36	126,775

3. Net Expenditure of Government Lymph Establishment.

	£
1932-33	12,583
1933-34	11,752
1934-35	11,492
1935-36	12,363
1936-37	12,069

Children.

No children's hospitals are provided or subsidised by the County Council, but some beds are maintained in the West Kirby Children's Convalescent Home. Bebington retains a bed in the West Kirby Convalescent Home for children from the Infant Welfare Centre.

6. MATERNITY AND NURSING HOMES.—Supervised by the County Authority.

7. *Institutional Provision for Unmarried Mothers, Illegitimate Infants and Homeless Children.*

Nil.

8. *Ambulance Facilities.*

(*a*) For Infectious Cases.—The Wirral Joint Hospital Board provides motor ambulances for the removal of infectious cases.

(*b*) Non-Infectious and Accident Cases.—Hoylake provides an ambulance ; Bebington, Neston and Wirral have an arrangement whereby an ambulance is hired when required. The Clatterbridge (County) General Hospital has two motor ambulances. Ambulance facilities are adequate throughout the area.

Clinics and Treatment Centres.

9. MATERNITY AND CHILD WELFARE CENTRES.—The County Council provide a Centre at Hoylake, Heswall, and Neston ; Bebington possesses three centres. These centres are advisory and do not undertake any treatment. " We consider that the primary function of such centres should be to provide advice, and that as a general rule treatment should be provided rather by the general practitioner." *Report of the Committee on Local Expenditure.*

An Orthopædic Clinic has been organised at New Ferry. Bebington has a pre-maternity clinics conducted by a Gynæcologist. At Bebington an Aural Clinics under the supervision of a specialist has been inaugurated and also an Eye Clinic.

DAY NURSERIES.—There is one day nursery which is situated in Hoylake and receives a subsidy from the County Council.

SCHOOL CLINICS.—There is a school clinics at Bebington. Dental and eye clinics are provided as part of the school medical service.

TUBERCULOSIS.—The County Council provide a dispensary at West Kirby, and has part use of the Birkenhead Tuberculosis Dispensary.

River Pollution.

In 1927, the Mersey Docks and Harbour Board appointed a Scientific Committee to investigate the effects of the discharge of Crude Sewage into the River Mersey, and issued the report of that Committee marked Private and Confidential. The final opinion was that " the continued discharge of crude sewage into the Mersey constitutes a grave danger to the conservancy of the River." Crude sewage draining into the tidal waters daily on the average amounted to 37,500,000 gallons. Untreated sewage discharging into the Estuary had increased greatly in the last fifty years, and it was claimed that the presence of the sewage increased the rate of sedimentation of solid matters and altered the character of the deposit so as to hinder and interfere with the efficacy of dredging operations. Merseyside authorities and companies concerned agreed to submit matters in controversy to the Department of Scientific and Industrial Research. Water Pollution Research Technical Paper Number 7 describes the work done in the investigation and the conclusions reached. Bebington and the now dissevered Wirral Rural District were two of the authorities which contributed to the expenses of the work. Mud deposits from estuaries of many rivers and bays in England, Scotland, Ireland and the Free State were examined for the purpose of comparison with Mersey mud. Erosion of the bed of the Irish Sea and the cliffs of Boulder Clay in the Upper Estuary and material carried by the streams entering the Estuary are the main sources of the mud. " Sewage in the concentration in which it is present in the Estuary of the Mersey has no appreciable effect on the composition of the mud and other solid matter deposited in the Estuary." " In direct answer to the terms of reference it is concluded that the crude sewage discharged into the Estuary of the River Mersey has no appreciable effect on the amount and hardness of the deposits in the Estuary." Investigation proceeded over a period of four years and the cost was £26,000.

Sale of Food and Drugs Acts.

Particulars of samples forwarded to the Public Analyst from the Area during the year ending 31st December, 1938.

Name of Sample	Number Analysed	Number of Samples not up to Standard or Certified as Adulterated	Name of Sample	Number Analysed	Number of Samples not up to Standard or Certified as Adulterated
Almonds (Ground)	7	—	Jelly, Crystals	1	—
Aspirin	1	—	Jelly, Table	1	—
Bicarbonate of Soda	1	—	Lard	11	—
Boracic Ointment	7	—	Liquid Paraffin	2	—
Butter	10	—	Liquorice, Powder	8	—
Castor Oil	7	—	Milk	134	12
Camphorated Oil	4	—	Milk, Condensed	2	—
Cheese	3	—	Margarine	1	—
Cheese (Cheshire)	11	—	Meat, Paste	3	—
Coffee	6	—	Oatmeal	1	—
Cream, Fresh	2	—	Oil of Wintergreen	1	—
Cream, Tinned	1	—	Olive Oil	6	—
Curry, Powder	1	—	Parsley, Dried	1	—
Epsom Salts	4	—	Pearl Barley	1	—
Figs, Syrup of	1	—	Pepper	2	—
Fish Paste	9	—	Rice, Creamed	1	—
Flowers of Sulphur	2	—	Rice, Ground	3	—
Fruit, Dried	1	—	Seidlitz Powders	2	—
Ginger, Ground	4	—	Semolina	1	—
Glucose, Tablets	1	—	Suet, Shredded	1	—
Glycerine	5	—	Sweets	1	—
Honey	3	—	Sulphur Tablets	1	—
Iodised Throat Tablets	1	—	Tea	1	—
Ipecac and Lemon, etc.	1	—	Whisky	9	1
Jam	1	—	Zinc Ointment	4	—
			Totals - -	293	13

Under each district report details are supplied.

Housing.

House building has been active throughout the area. The following table shows the number of new houses erected and occupied from 1921 to the present time.

Year.			Houses Completed.
1921			268
1922			501
1923			599
1924			938
1925			1,177
1926			1,294
1927			1,291
1928			1,105
1929			1,606
1930			995
1931			696
1932			689
1933			963
1934			1,667
1935			1,747
1936			1,958
*1937	Bebington Hoylake Neston Wirral	799 397 54 218	1,468
1938	Bebington Hoylake Neston Wirral	525 275 35 254	1,089
	Total	-	19,051

*Ellesmere Port now omitted.

Prevalence of, and Control over, Infectious and other Diseases.

Table showing Total Cases (other than Tuberculosis) notified during the year 1938.

Notifiable Infectious Diseases

Disease.	Total Cases Notified.	Total Cases Admitted to Hospital.	Total Deaths.
Smallpox	—	—	—
Scarlet Fever	274	219	—
Diphtheria	303	283 + 12 neg.	15
Enteric Fever	5	2	—
Puerperal Pyrexia	9	5	—
Pneumonia	120	41	56
Erysipelas	39	12	—
Cerebro-spinal Fever ...	2	1	1
Acute Poliomyelitis ...	2	2	—
Acute Polio-encephalitis ...	—	—	—
Encephalitis Lethargica ...	—	—	3
Dysentery	29	—	—
Malaria	2	2	—
Chickenpox	28	—	—
Totals -	813	567 + 12 neg.	75

Table of Age Groups Showing Total Cases Notified and Deaths, 1938.

N.W. CHESHIRE COMBINED (P.H.) DISTRICT.

Disease		Total Cases	Total		0-1		1- 2		2-3		3-4		4-5		5-10		10-15		15-20		20-35		35-45		45-65		65 up	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Cases		813	421	392	15	1	10	13	26	16	21	19	22	21	144	136	69	53	19	33	40	49	15	23	31	17	9	11
Total Deaths		75	38	37	4	5	2	1	1	...	...	2	1	3	5	4	...	1	...	...	1	...	2	3	16	6	6	12
Smallpox	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	Cases	274	132	142	...	...	4	3	10	7	9	9	9	9	57	64	17	19	10	16	12	8	3	7	1	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	Cases	303	141	162	11	...	2	7	8	3	10	8	6	10	55	62	38	30	5	13	5	19	1	5	...	4	...	1
	Deaths	15	5	10	...	...	...	...	...	...	...	2	1	3	4	4	...	...	...	...	...	...	...	1	...	...	...	...
Enteric Fever	Cases	5	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	...	1	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	Cases	120	74	46	1	1	2	1	2	2	1	1	4	...	14	6	4	2	2	4	16	9	8	6	17	7	3	7
	Deaths	56	30	26	4	5	2	1	1	...	...	...	...	...	1	...	...	1	...	...	1	...	1	2	15	6	5	11
Erysipelas	Cases	39	24	15	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	2	3	2	3	12	5	6	3
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Fever	Cases	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
	Deaths	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Acute Poliomyelitis	Cases	2	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Polio-encephalitis	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Puerperal Pyrexia	Cases	9	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	1	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	Cases	28	20	8	...	...	1	2	2	...	...	1	2	1	10	2	4	2	...	...	1	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	Cases	29	23	6	2	...	1	...	3	3	1	...	1	1	8	1	6	...	...	...	1	1	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria	Cases	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statistics of Wirral Joint Hospital, 1938.

The admissions during the year were from :—

January 1st, 1938 to December 31st, 1938. Disease	Bebington	Hoylake	Neston	Wirral	TOTALS
Scarlet Fever	116	29	29	34	208
Diphtheria	147	66	34	41	288
Enteric Fever	2	—	—	1	3
Erysipelas	15	1	1	—	17
Measles	6	8	—	7	21
Chickenpox	—	—	—	2	2
Dysentery	1	—	—	—	1
Meningitis	1	—	—	—	1
Poliomyelitis	2	—	—	—	2
Tonsillitis...	6	—	—	4	10
Vincent's Angina ...	—	—	—	1	1
Whooping Cough ...	—	—	—	1	1
Mumps	—	—	—	2	2
Scarlet Fever and Diphtheria ...	2	1	—	1	4
Scarlet Fever and Chickenpox ...		4	—		4
Other Diseases	4	—	—	5	9
Totals -	302	109	64	99	574
Deaths	10	3	—	3	—

50 patients from the Convalescent Home, West Kirby.

22 patients from the R.L.C.H., Heswall.

50 patients from the County Hospital, Clatterbridge.

6 patients from the Ellen Gonner Home, Hoylake.

1 patient from the Neston Cottage Hospital.

1 patient from the Babies' Hospital, Hoylake.

4,691 swabs taken, 157 positive, 4,534 negative.

17 Stools tested.

6 Urine.

1 C.S. Fluid.

2 Widal tests.

6 Operations for Acute Mastoid.

18 Operations for removal of Tonsils and Adenoids.

DISINFECTION.

Steam disinfection is available for articles which have been in contact with infected persons and is insisted upon by the local authorities in all notified cases. Requests for steam disinfection of bed and bedding under circumstances which the owners think make it advisable are invariably acceded to. Increasing reliance is now being placed upon thorough cleanliness and fresh air in the disinfection of premises rather than upon the extremely hypothetical action of the exhibition of so-called disinfectants. This public service of fumigating houses is one of those to which the following extract from the Report of the Committee on Local Expenditure, 1932, applies:—There seems to us to be a few services which modern medical opinion considers to be obsolete or obsolescent either by change in the circumstances to which they were directed when they were instituted or by advances in medical knowledge. Such services tend to be continued out of habit and from pressure of public opinion. We suggest that these services should be terminated as soon as is compatible with a reasonable regard for public opinion.

Terminal Disinfection.—The question of disinfecting houses after scarlet fever is dealt with in the same Report, " and we have received independent evidence that both in scarlet fever and in diphtheria, if proper procedure is adopted during the course of the disease, the terminal disinfection has little medical value and is performed largely out of deference to public opinion.

We recommend that Sanitary Authorities, in consultation with their medical officers of health, should take steps to educate public opinion in this matter and discontinue such of their present expenditure on disinfection as has no medical value. The saving which would result from a general adoption of this recommendation is more difficult to estimate, but is not likely to be less than £100,000." (Report of Committee on Local Expenditure, 1932).

* * * *

All the districts make use of the Cultivation Officer of the County for the diminution of the rat population. With its brackish pools along the Dee Estuary, numerous ponds and streams " slimie and full of mudde " Wirral affords excellent breeding grounds for the mosquito. The " complexion of the times " is shown in the number of complaints of annoyance from mosquito bites.

Tuberculosis, 1938.

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Years								
0-1	—	—	—	—	—	—	2	—
1-5	1	—	1	1	—	—	—	—
5-10	3	1	—	3	—	—	—	1
10-15	4	1	1	—	—	—	—	—
15-20	1	4	1	—	—	1	—	—
20-25	2	8	—	—	—	2	—	—
25-35	5	7	—	—	6	6	—	1
35-45	5	4	1	—	6	7	—	—
45-55	3	3	—	—	3	4	—	—
55-65	2	2	—	—	5	1	—	—
65 and upwards ...	2	—	—	—	—	1	—	—
Totals ...	28	30	4	4	20	22	2	2

Tuberculosis Mortality in North-West Cheshire 1922-38.

Year.	No. of deaths.	Year.	No. of deaths.
1922 ...	64	1931 ...	68
1923 ...	75	1932 ...	62
1924 ...	67	1933 ...	62
1925 ...	77	1934 ...	50
1926 ...	70	1935 ...	63
1927 ...	75	1936 ...	47
1928 ...	76	1937 ...	42*
1929 ...	76	1938 ...	46
1930 ...	57		

*—Ellesmere Port omitted.

Tuberculosis Mortality in England and Wales 1920-36, is shown in the following table :—

Year.	Number of deaths.	Year.	Number of deaths.
1920 ...	42,545	1929 ...	37,990
1921 ...	42,678	1930 ...	35,745
1922 ...	42,777	1931 ...	35,818
1923 ...	40,788	1932 ...	33,658
1924 ...	41,103	1933 ...	33,259
1925 ...	40,387	1934 ...	30,882
1926 ...	37,525	1935 ...	29,201
1927 ...	38,173	1936 ...	28,268
1928 ...	36,623		

172 Examinations of sputum from residents in North-West Cheshire, made to determine the presence of tubercle bacilli, at the County Tuberculosis office gave the following results :—

	Positive	Negative	Total
Bebington U.D. ...	13	79	92
Hoylake U.D. ...	10	22	32
Neston U.D.	3	24	27
Wirral U.D.	8	13	21
	34	138	172

1938.

	Cases.			Vision unimpaired	Vision impaired.	Total Blindness.	Deaths.
	Notified.	Treated.					
		At Home.	In Hospital.				
OPHTHALMIA NEONATORUM	3	1	2	3	Nil.	Nil.	Nil.

Borough of Bebington

The Urban District was formed on 1st April, 1922, by fusion of the Urban Districts of Higher and Lower Bebington and Bromborough.

On 1st April, 1933, the parishes of Poulton-cum-Spital, Storeton and parts of the parishes of Brimstage, Eastham, Childer Thornton, Hooton, Thornton Hough, Raby, Willaston and Neston are included.

The Urban District received its Charter of Incorporation on 28th September, 1937.

Statistics and Social Conditions of the Area.

Area (acres)	12,234
Registrar-General's estimate of resident population, 1938	40,980
Number of inhabited houses end of 1938	12,058
Rateable value	£333,248
Sum represented by a penny rate	£1,305

The Natural Increase of the population, that is the excess of births over deaths is shown in the following table :—

Year.	Population.	Natural Increase per 1,000 population.
1922	19,600	9.0
1923	19,870	9.4
1924	20,230	8.6
1925	20,610	6.5
1926	22,350	8.3
1927	23,140	6.2
1928	23,720	8.8
1929	24,900	8.9

Year.	Population.	Natural Increase per 1,000 population.
1930	26,020	9.5
1931	26,950	9.2
1932	27,520	7.1
1933	32,410	5.7
1934	34,930	6.9
1935	36,340	6.6
1936	37,740	6.7
1937	39,550	6.9
1938	40,980	7.9

Natural Increase of Population (*i.e.*, excess of Births over Deaths) 1922-1937 (England and Wales).

Year.		per 1,000 population.	Year.		per 1,000 population.
1922	...	7.6	1930	...	4.9
1923	...	8.1	1931	...	3.5
1924	...	6.6	1932	...	3.3
1925	...	6.1	1933	...	2.1
1926	...	6.2	1934	...	3.0
1927	...	4.3	1935	...	2.9
1928	...	5.0	1936	...	2.7
1929	...	2.9	1937	...	2.5

Extracts from Vital Statistics of the Year 1938.

These statistics are calculated on the population of 40,980 supplied by the Registrar-General. This is an increase of 1,430 on the estimated population of the previous year, and it would strike an observer as considerably less than the actual increase. Calculating the population from the number of houses it is probably considerably over 40,000.

Live Births.

		Males.	Females.	Total.
Legitimate	...	348	335	683
Illegitimate	...	8	7	15
		356	342	698

Birth Rate 17.03 per 1,000 of the population.

Live Birth Rate per 1,000 estimated resident population (1938) in 148 smaller towns (population 25,000-50,000 Census 1931), 15.4.

Still Births.

	Males.	Females.	Total.
Legitimate ...	14	11	25
Illegitimate ...	1	0	1
	15	11	26

Still-Birth Rate 35.9 per 1,000 total Live and Still-Births, or .6 per 1,000 of the total population.

Table of Number of Births and Birth Rates, 1922-1937.

Year.	Number.	Birth Rate.
1922	375	19.1
1923	360	18.1
1924	341	16.8
1925	321	15.5
1926	367	16.4
1927	358	15.4
1928	419	17.7
1929	460	18.5
1930	475	18.3
1931	489	18.1
1932	439	16.0
1933	490	15.1
1934	565	16.2
1935	589	16.2
1936	620	16.4
1937	686	17.3

The average number of births per annum in the years 1922-37 was 459.

Birth Rate England and Wales (1938) 15.1.

Birth Rate in the Administrative County of Chester (1937) 14.2.

Deaths.

Total, 372 ... Males, 176 ... Females, 196

Death Rate 9.07. The corrected death rate was 10.06.

The death rate per 1,000 estimated resident population in the 148 smaller towns (25,000-50,000 Census 1931) was 11.0 (1938).

Table of Number of Deaths and Death Rates, 1922-1937.

Year.	Number.	Death Rate.
1922	197	8.9
1923	172	8.6
1924	168	8.3
1925	185	8.9
1926	181	8.0
1927	215	9.2
1928	212	8.9
1929	238	9.6
1930	230	8.8
1931	241	8.9
1932	247	9.0
1933	305	9.4
1934	323	9.2
1935	349	9.6
1936	367	9.7
1937	412	10.4

The average number of deaths per annum in the years 1922-1937 was 252.

Ratio of local adjusted death rate to National Rate was 0.89 (1937).

Death Rate in the Administrative County of Chester was 12.2 bearing a ratio of 0.99 to the National Rate (1937).

37% of the deaths took place in Public Institutions.

DEATHS FROM PUERPERAL CAUSES.

	Deaths.	Rate per 1,000 Total Live & Still-Births.	Rate per 1,000 Live Births.
Puerperal Sepsis ...	—	—	—
Other Puerperal Causes	3	4.1	4.3
	3	4.1	4.3

The figures for England and Wales :—

Puerperal Sepsis	0.86	0.89
Other Puerperal Causes ...	2.11	2.91
Total ...	2.97	3.08

DEATH RATE OF INFANTS under 1 year of age.

	Number.	Rate.
All infants per 1,000 live births	28	40.0
Legitimate infants per 1,000 legitimate live births	28	42.0
Illegitimate infants per 1,000 illegitimate live births	0	0

Table of Infantile Mortality, 1922-1937.

Year.	Rate per 1,000 Births.
1922	64.0
1923	47.2
1924	43.9
1925	62.0
1926	68.0
1927	36.0
1928	45.0
1929	54.0
1930	74.0
1931	45.0
1932	55.0
1933	61.0
1934	48.0
1935	62.8
1936	50.0
1937	49.0

REGISTRAR-GENERAL'S TABLE (1938).	Deaths under 1 Year per. 1,000 Registered Live Births
England and Wales	53
126 county boroughs and great towns including London	57
148 smaller towns (25,000-50,000 1931 Census)	51
London (Administrative County)	57
Deaths from Measles (all ages)	2
Deaths from Whooping Cough (all ages) ...	0
Deaths from Diarrhœa (under 2 years of age)	2
Deaths from Cancer (all ages)	62

The deaths from Measles in the preceding five years were 7, from Whooping Cough 5, and from Diarrhœa (under 2 years of age) 3.

Causes of Death.

	All Causes.	Males.	Females	Total.
1.	Typhoid and Paratyphoid Fevers	0	0	0
2.	Measles	2	0	2
3.	Scarlet Fever	0	0	0
4.	Whooping Cough	0	0	0
5.	Diphtheria	3	7	10
6.	Influenza	4	2	6
7.	Encephalitis Lethargica	1	1	2
8.	Cerebro-spinal Fever	1	0	1
9.	Tuberculosis of Respiratory System	9	10	19
10.	Other Tuberculous Diseases	2	0	2
11.	Syphilis	0	1	1
12.	General Paralysis of the Insane, Tabes Dorsalis	0	0	0
13.	Cancer, Malignant Disease	26	36	62
14.	Diabetes	3	2	5
15.	Cerebral Hæmorrhage, &c.	5	8	13
16.	Heart Disease	41	66	107
17.	Aneurysm	0	0	0
18.	Other Circulatory Diseases	7	6	13
19.	Bronchitis	5	3	8
20.	Pneumonia (All forms)	16	12	28
21.	Other Respiratory Diseases	2	1	3
22.	Peptic Ulcer	5	0	5
23.	Diarrhœa, &c. (under 2 years)	2	0	2
24.	Appendicitis	0	0	0
25.	Cirrhosis of Liver	0	1	1
26.	Other Diseases of Liver, &c.	0	1	1
27.	Other Digestive Diseases	5	2	7
28.	Acute and Chronic Nephritis	2	3	5
29.	Puerperal Sepsis	0	0	0
30.	Other Puerperal Causes	0	3	3
31.	Congenital Debility, Premature Birth, Malformation, &c.	8	5	13
32.	Senility	2	2	4
33.	Suicide	1	4	5
34.	Other Violence	12	5	17
35.	Other Defined Diseases	12	15	27
36.	Causes Ill-defined or Unknown	0	0	0
	Special Causes (*included in No.* 35 *above*)			
	Smallpox	0	0	0
	Poliomyelitis	0	0	0
	Polio-encephalitis	0	0	0
	Totals - -	176	196	372

General Provision of Health Services in the Area.

These are noted under North-West Cheshire, *page* 17.

List of Adopted Acts, Bye-Laws, Regulations.

Infectious Diseases (Prevention) Act	1890
Public Health Acts (Amendment) Act (Parts I., II., III.)	1896
Public Libraries Acts	1892-1910
Private Street Works Act	1895
Small Dwelling Acquisition Act	1899
Notification of Births Acts	1907 & 1912
Public Health Acts (Amendment) Act	1907
Public Health Act	1925

Bye-Laws.

Relating to—

New Streets and Buildings	1930
Fish Frying	1930
Recreation Grounds	1927
Common Lodging Houses	1936
Cleansing of Cesspools	1936
Slaughter-houses	1936

Sanitary Circumstances of the Area.

WATER.—The West Cheshire Water Board Act of 1925 brought under the control of the Board the area of the West Cheshire Water Company and certain works of the Wirral Waterworks Company. Transfer took place to the new Board in 1925 of a population of 55,000, and in 1937 the population supplied was 95,000. Land for a new pumping station at Mouldsworth had been acquired in 1928, and in 1937 the work was completed and formally opened. A duplicate pumping plant has been provided. The bore holes, as for all the other Wirral supplies, are in the Bunter Sandstone (new Red Sandstone). Sand to the depth of 250 feet covers the site of the pumping station, and the bore hole passes to a depth of 1,000 feet. From this sandstone the waters are clear, bright, colourless, palatable and wholesome, according to the authorities. Next to the chalk this pervious sandstone supplies the most abundant yield. " The sand granules of which the rocks are composed are cemented together by calcium sulphate and carbonate ; hence the water is usually very hard, but much of the hardness is removable by boiling." Analyses of the waters as pumped from the bore hole during construction have not been supplied. Thresh, however, in " The Examination of Water and Water Supplies," gives an analysis of the water at a depth of 250 feet and again at 800 feet. He makes the comment that the top water was harder and contained more sodium chloride. As a matter of interest it may be noted that the figure for common salt at 250 feet was 77.95 and at 800 feet 29.98 parts per 100,000, contrasting with Hooton 5.5 and Prenton 6.15. The hardness of Mouldsworth water at 250 feet was 30.8 degrees, at 800 feet 18.2 degrees. Hooton water has a hardness of 18.9 degrees and Prenton 14.

Information is given that " Before leaving the vicinity of the Pumping Station, however, the water is first softened and the arrangement of the piping and valves is such that a proportion of the crude water, in its natural state, is passed through the softening plant, where its hardness is reduced to zero before it is returned to mix with the remaining water on its way to the Service Reservoir." The latter is situated on Simmonds' Hill, some two miles away, and 438 feet in height. Work still remains to be done by the sinking of a shaft and driving adits into the sandstone to connect with the two bore holes so as to augment the supply. Simmonds' Hill Service Reservoir has a capacity of 8,000,000 gallons, and is circular in outline, with an internal diameter of 262 feet, a depth of water of 25 feet, and top water level 450 feet, above Ordnance Datum. Softening is accomplished by the Permutit Process which reduces a hardness of 16 degrees to 9.5 degrees. It is claimed that these works are unique in being the first fully automatic Zeolite Installation laid down in Europe by a public water undertaking.

All the water supplied to the Borough of Bebington, the

Urban District of Wirral and to parts of Hoylake and Neston Urban Districts is softened to under ten degrees of hardness.

Public attention has been drawn by the Croydon occurrences to the possibility of pollution of bore hole waters. Enteric fever had almost completely disappeared from England with the introduction of pure water supplies and improved disposal of sewage. Croydon's mishap has reawakened the need for caution, lulled by years of freedom from serious outbreaks.

Consecutive but unassociated epidemic outbreaks during the last three years in various parts of the country have now induced a state of public nervousness, and necessitated a circular from the Ministry of Health suggesting steps to be taken to ensure greater co-ordination between engineering and sanitary services. The geological formation from which the water at Croydon was derived is chalk, which, as is well known is apt to contain fissures and swallow holes, through which sewage may pass in and contaminate the water. Fissures are absent from the Bunter sandstone, or are closely packed with sand, which forms an excellent filtering medium.

Arrangements have now been made for chlorination of all the water supplied by the West Cheshire Water board.

West Cheshire Water Board (softened supply). The following analyses are typical of waters from Hooton and Prenton Wells.

HOOTON.

Chemical Results in Parts per 100,000.

Appearance.—Clear and bright.

Colour.—Normal. Odour, nil.

Reaction pH.—Neutral 7.4. Free Carbonic Acid. 1.3.

Electric Conductivity at 20 degrees C., 690.

Alkalinity as Calcium Carbonate.—23.5.

Total Solids, 180 degrees C.—46.0

Chlorine in Chlorides.—8.8.

Nitrogen in Nitrates.—nil. Nitrites absent.

Hardness :	Permanent	0.0 grains per gallon	
	Temporary	8.0	do.
	Total	8.0	do.

Metals.—Iron 0.003 ; Manganese, Zinc, etc., absent.

Free Ammonia.—0. Ammoniacal Nitrogen—0.

Albuminoid Ammonia.—0.0000. Albuminoid Nitrogen—0.

Oxygen absorbed in 4 hrs. at 80 degrees F.—0.000.

BACTERIOLOGICAL RESULTS.

No. of Bacteria per cc. or ml.

On Agar in 3 days at 20 degrees C.—3.

On Agar in 1 day at 37 degrees C.—0.

On Agar in 2 days at 37 degrees C.—0.

The Bacillus Coli.—Absent in 100 cc.

Bacillus Welchii (B. Enteritidis Sporogenes).—Absent in 100 cc.

This sample is clear and bright, of normal colour, neutral in reaction, and free from metals apart from the negligible trace of iron. The water is of moderate hardness, contains no excess of saline or mineral matter in solution, and is of the highest standard of organic and bacterial purity.

It is therefore considered pure and wholesome in character, and suitable for the purposes of public supply.

PRENTON.

Parts per 100,000.

Appearance.—Clear and bright.

Colour.—Normal. Odour nil.

Reaction pH.—Neutral 7.0. Free Carbonic Acid.—2.4.

Electric Conductivity at 20 degrees C.—515.

Alkalinity as Calcium Carbonate.—17.0.

Total Solids, 180 degrees C.—34.5.

Chlorine in Chlorides.—5.7.

Nitrogen in Nitrates.—0.28. Nitrites absent.

Hardness :	Permanent	0.0	grains per gallon
	Temporary	10.0	do.
	Total	10.0	do.

Metals.—Absent.

Free Ammonia.—0.0024. Ammoniacal Nitrogen.—nil.

Albuminoid Ammonia.—0.0000. Albuminoid Nitrogen.—nil.

Oxygen absorbed in 4 hrs. at 80 degrees F.—0.000.

BACTERIOLOGICAL RESULTS.

No. of Bacteria per cc. or ml.

On Agar in 3 days at 20 degrees C.	7.
On Agar in 1 day at 37 degrees C.	2.
On Agar in 2 days at 37 degrees C.	4.

The Bacillus Coli. Absent in 100 cc.

Bacillus Welchii (B. Enteritidis Sporogenes). Absent in 100 cc.

REPORT.—This is a clear and bright water of normal colour, neutral reaction and fairly soft in character. The water contains no excess of saline matter, is free from metals, and of the highest degree of bacterial purity.

We regard the water as pure and wholesome, suitable for the purposes of public supply.

DRAINAGE AND SEWERAGE.—The inadequacy of the sewerage and sewage disposal arrangements consequent upon the rapid growth of the Borough has been referred to in the Annual Reports of preceding years, and the detrimental influence exerted by the absence of sewers on parts of the area otherwise well adapted for the erection of houses has been mentioned. Over four years ago an enquiry was held by an Inspector of the Ministry into an application to borrow £112,384 to obtain satisfactory drainage. The Ministry advised that there should be a comprehensive scheme for the whole district, and consulting engineers were appointed to be associated with the Borough Engineer. The result of the collaboration came recently before an Inspector of the Ministry, but the Minister's findings have not yet been issued. Probably these findings are bound up with the Report on the Effects of Sewage in the Mersey. The plans before the Inspector contemplated the needs of the Borough if development proceed as anticipated during the next thirty years, and involved an expenditure at to-day's prices of £487,000. An expenditure in the first instance of £214,000 for sewers and £141,000 for Disposal Works was advocated by the Borough Engineer to meet immediate requirements.

No better method is available to calculate the development of the Borough than to quote from the carefully compiled statistics given in evidence by the Engineer. From 1922 to 1937 houses and shops to the number of 7,293 were built and approval has been given for a further 7,011. Considerably more than half of these latter will be erected on sites not at present suitable owing to the lack of sewers.

Centralised disposal works at Eastham will obviate the need for the eight existing works. Fifty-three acres have been provisionally acquired in Eastham for disposal works, and these will have to be completed before the sewers are utilised. By 1944-45 it is estimated that the volume of sewage to reach the works will be 2,200,000 gallons per day.

Sedimentation tanks to secure an effluent of not more than 10 parts of suspended matter per 100,000 will be constructed. Storage tanks with a capacity equal to two days' dry weather flow plus a margin of 10 per cent. are provided for. These tanks can discharge their contents in three hours commencing three-quarters of an hour after high tide. At the same time they can discharge the maximum volume of storm water that may be passing at any time during the next thirty years.

The present position is that in the Bromborough area purification works were constructed a few years ago, but for the older sewered portions of the district there are two outfalls into the Mersey. At the southern outfall, the crude sewage is retained until the tide is at a level suitable for its discharge. Crude sewage from the northern outfall passes straight into the Mersey, western side of Eastham and the parishes of Childer Thornton.

Eastham Rake sewerage works receive drainage from Hooton and part of Willaston. For some years these works have been overloaded and the unsatisfactory effluent is a considerable factor in the pollution of the Dibbin Brook which flows for about two miles through the district to fall into Bromborough Pool. In its course, the Dibbin received crude sewage from overflowing cesspools and ineffective purification filters. Eastham Rake works have undergone considerable reconditioning and stringent action has been taken to remove and prevent further contamination of the stream. Industrial effluents from which large volumes of sulphur gases are evolved, to the annoyance of the neighbourhood, are discharged into the Pool.

Thornton Hough has sewage disposal works sufficient for its present needs. Brimstage and Raby have no system, but these are rural and have not been affected by building developments.

4 houses previously provided with earth closets have had water closets substituted. This was following informal notices and at owner's expense.

1 house previously provided with a pail closet had a water closet substituted. This was following informal notice and at owner's expense.

1 cesspool was abolished and house drains connected to sewer. This was at owner-occupier's request.

15 houses were provided with baths during general repairs to houses.

There are still 47 earth closets.
56 pail closets.
8 chemical closets.
33 privies.
286 cesspools or septic tanks.
25 fixed ashpits.

Disposal of the Dead.—The Bebington Council, aware that accommodation for the Disposal of the Dead was becoming limited in certain parts of the area under their control, gave instructions to the responsible officials some years ago to endeavour to find land suitable for a cemetery. A large number of sites was investigated but for varying reasons had to be rejected. Finally it was decided to purchase 48 acres in Eastham, if the Ministry of Health granted sanction. The difficulty of finding a site suitable from most points of view, and to which fewest valid objections could be offered, in the immediate vicinity of a rapidly growing town can be readily understood. Other districts in Wirral, where the increase in population was much less marked, have met with similar difficulties. Many objectors have good grounds for the arguments they adduce against their Council representatives proceeding to acquire land for what, in the present state of public opinion, is admittedly necessary ; but not infrequently an element of contumaciousness exhibits itself. At the public inquiry conducted by an Inspector of the Ministry the policy of the Council was hotly traversed. The price was roughly £520 per acre, and evidence proved that this was a reasonable market value, considering current prices of land on Merseyside. If entirely used for a cemetery with the present population and death rate, it would serve for a century and a half. After a full investigation the necessary sanction was obtained.

That disease can be engendered by noxious odours from a properly-conducted cemetery or by germs present in the dead body is, if modern theories based on experimental evidence are accepted, a myth. A ready means of accomplishing the purpose of earth burial is obtained by cremation. It substitutes for months of decay, witness the process as exhibited in ghoulish sculpture in some cathedral monuments, a process in which complete destruction takes place in a few hours. Yet from a recent work dealing with this subject it may be learned that in England in 1935 only 9,164 bodies were cremated, or 1.6 per cent. of the number of deaths. In the same year in Germany probably not less than 10 per cent. was the proportion. Half a square mile of land is required for burials of the half million deceased every year in England, and 2,500 acres is the area serving Greater London. Cremations in Berlin now exceed earth burials.

> Cremation and urbanisation go hand in hand. One-third of Great Britain's population is concentrated in six urban centres with a population exceeding a million : Greater London, Glasgow, Birmingham, Liverpool, Manchester, and Newcastle-on-Tyne. A further 5¼ million is accounted for by fourteen centres with populations between a quarter of a million and one million. There is no parallel elsewhere for this concentrative grouping of the population but it favours the growth of cremation which in rural areas cannot for many years, if ever, compete with earth burial.

Funeral Reform and Burial Costs.

The authors are of opinion that the reasons for the slow development of cremation in England are " conservative adherence to personal habits and traditional beliefs which take the outward form of religious scruples " and erroneous assumption that cremation is costly. In Edinburgh persons insured under the National Health Insurance Acts are entitled to cremation for £3 3s. 0d., inclusive of all charges. Any person on payment of £5 5s. 0d. down, or six consecutive annual subscriptions of £1 1s. 0d. can become a life member of the Cremation Society and as such entitled at death to free cremation at any crematorium in Great Britain.

At the present time a Bill has been introduced by Lord Horder into Parliament " to provide for the registration of funeral directors and for purposes connected therewith."

The whole book is a plea for drastic changes in the " organisation of burial and funeral."

> The cry that " the people love to have it so " is frequently heard on the lips of those who derive commercial profit from things as they are. We were not long ago assured that miners would not

> use pithead baths, or safety helmets. that safety appliances would never be acceptable to workers in certain industries. That there is generally, at first, opposition to change is a commonplace, but it should not deter those who have the public welfare at heart It is certain that much could be done to foster the desire by a careful scrutiny of the costs of sepulture, as to which, unlike any other commodity of importance, no information is at present available.

Many French, German and Italian cities have a " statutory monopoly of the undertaking business." In Frankfurt, funerals are carefully graduated according to income-tax levels and up to an income of £60 there are no charges.

In Switzerland burial and cremation are communal services and are free to all persons holding certificates of residence.

In England the Ministry of Health, by the establishment of Ante-natal Clinics and Municipal Midwives has undertaken to make arrangements prior to and for the entrance of most of the citizens and it is quite logical that it should proceed to deal with them at and after their exits, as its activities now control them throughout the course of their lives.

Sanitary Inspection of the Area.

The following Inspections have been made and Notices served during the year 1938 :—

Number and Nature of Inspections Made.		Number of Notices Served.		Result of Service of Notices.	
		Informal	Statutory	Complied with	Remaining in hand
Dwelling Houses (First Visits)	478	202	—	127	75
Dwelling Houses (Revisits)	1284	92	46	75	17
Overcrowding	632	—	—	—	—
Tents, Vans, Sheds, etc. ...	7	—	—	—	—
Courts, Yards, Passages ...	131	12	6	11	1
House Drainage	1779	139	5	127	12
Privies, Middens	670	227	23	217	10
Cesspools, Septic Tanks, etc.	136	19	2	16	3
Ditches and Water Courses ...	39	6	—	6	—
Offensive Accumulations ...	151	62	5	62	—
Keeping of Animals	57	6	—	6	—
Rat Infestations	177	3	1	2	1
Slaughter-houses	808	3	—	3	—
Butchers' Shops	94	1	—	1	—
Ice Cream Premises	16	—	—	—	—
Other Food Premises	94	14	—	14	—
Offensive Trades	34	2	1	2	—
Piggeries	17	1	—	1	—
Dairies, Cowsheds, etc. ...	444	13	—	11	2
Factories and Workshops ...	124	28	5	26	2
Bakehouses	75	14	2	13	1
Smoke Observations ...	27	1	1	1	—
Public Schools	41	8	—	4	4
Public Conveniences	71	—	—	—	—
Places of Entertainment ...	35	3	—	2	1
Licensed Premises	41	5	1	4	1
Infectious Disease Enquiries ...	445	—	—	—	—
Infectious Disease Revisits ...	196	—	—	—	—
Verminous Premises	187	2	—	2	—
Appointments outside Office ...	235	—	—	—	—
Miscellaneous	246	1	—	1	—
Totals - -	8,771	864	98	734	130

During the past year :—

864 Informal Notices have been served.

98 Statutory Notices have been served.

608 Complaints have been received.

230 Notices have been served in consequence of complaints received.

3 Prosecutions were pursued in respect of offences against the Milk and Dairies Order ; 3 in respect of contraventions of the Public Health Acts ; 5 under the Public Health (Meat) Regulations, 1924 ; 1 under the Housing Act, 1936.

Administration of Shops Acts, 1912-34.

Inspections have been made to ascertain whether assistants' hours of employment were being recorded, to checking correctness of records kept, to ensuring that the sanitary conditions were satisfactory, that the health and comfort of assistants was being safeguarded, that compensatory holidays were given to those assistants employed on Sundays and to preventing unfair competition by enforcing the closing of shops at the proper closing hours.

84 notices were served in relation to the failure to provide the necessary facilities to ensure healthy and comfortable working conditions and in this respect 35 shops have been provided with the means of maintaining a reasonable temperature.

20 shops have had the ventilation of their premises improved.

5 shops have been provided with sanitary conveniences.

7 shops have been provided with washing facilities.

3 shops have been provided with seats for female assistants.

2 shops have been provided with proper facilities for the assistants to take their meals on the premises.

101 Warnings given by Chief Inspector.

15 Offences reported to Committee.

13 Prosecutions.

11 Convictions,

Eradication of Bed Bugs.

1.—No. of houses found to be infested.

(*a*) Council houses	...	...	3
(*b*) Other houses	...	...	21

2.—No. of houses disinfested.

(*a*) Council houses	...	...	3
(*b*) Other houses	...	...	21

3.—Methods employed for freeing infested houses from bed bugs.

Rooms have been sprayed with "Zaldecide" and bedding steam disinfested. One experienced man is employed to carry out the spraying and this work is supervised by an Inspector.

4.—Methods employed for ensuring that the belongings of tenants are free from vermin before their removal to Council Houses.

The House Property Manager reports all doubtful cases. An inspection of the applicant's house and bedding, etc., is made. The furniture is sprayed with "Zaldecide" and bedding is removed to the steam disinfector for steam disinfestation and returned to the Council House.

5.—Whether the work of disinfestation is carried out by the local authority or by a contractor.

The Local Authority.

6.—The measures taken by way of supervision or education of tenants to prevent re-infestation after cleansing.

A pamphlet prepared by the Chief Sanitary Inspector is issued to all tenants where disinfestation is carried out and tenants are notified to refer immediately any further infestation, to the Sanitary Inspector. The Sanitary Inspector advises all tenants of houses where disinfestation is being or has been carried out, to place all bed-posts in tins on the floor. Disused floor-polish or boot-polish tins filled with paraffin or other insecticide are suggested. This procedure has trapped stray bugs which may cause further infestation.

Swimming Pools.

Bacteriological Report on samples of Water from the New Ferry Swimming Pool. (1936).

Description	Bacteria per c.c. 37 deg C	Bacteria per c.c. 22 deg C	B. coli.
1. W. Bebington Baths. Shallow End. Filters working	0	1	Absent in 100 c.c.
2. W. Bebington Baths. Centre of bath. Filters working	0	0	Absent in 100 c.c.
3. W. Bebington Baths. Centre of bath. Filters working.	6	0	Present in 100 c.c. Absent in 90 c.c.
4. W. Bebington Baths. Deep end. Filters working.	6	0	Absent in 100 c.c.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors

Premises. (1)	Number of Inspections (2)	Number of Written Notices. (3)	Number of Occupiers Prosecuted (4)
Factories with mechanical power	9		
Factories without mechanical power	190	25	
* Other Premises under the Act (including works of building and engineering construction but not including outworkers' premises) *—Electrical Stations should be reckoned as factories			
Total	199	25	

2.—Defects found.

Particulars (1)	Number of Defects Found (2)	Remedied (3)	Referred to H.M. Inspector. (4)	Number of defects in respect to which Prosecutions were instituted. (5)
Want of cleanliness (S. 1)	14	14	...	...
Overcrowding (S. 2)	...	...	...	...
Unreasonable temperature (S. 3)	3	3	...	...
Inadequate ventilation (S. 4)	2	2	...	...
Ineffective drainage of floors (S. 6)	...	...	...	...
Sanitary Conveniences (S. 7) insufficient	...	...	...	...
Sanitary Conveniences (S. 7) unsuitable or defective ...	4	4	...	...
Sanitary Conveniences (S. 7) not separate for sexes ...	1	1	...	...
Other offences ... ... (Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)	7	...	7	...
Total	31	24	7	Nil.

Inspection of Dwelling Houses during the Year 1938.

(1) (*a*) Total number of houses inspected for housing defects (under Public Health or Housing Acts) ... 478

(*b*) Number of inspections made for the purpose ... 1,762

(2) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925-1932 31

(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 8

(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 23

2. **Remedy of Defects during the Year without Service of Formal Notices.—**

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers 127

3. **Action under Statutory Powers during the Year.—**

A. Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which notices were served requiring repairs 3

(2) Number of dwelling houses which were rendered fit after service of formal notices :—

(*a*) By owners ... ... Nil

(*b*) By Local Authority in default ... ... Nil

B. Proceedings under Public Health Acts.

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied 46

(2) Number of dwelling houses in which defects were remedied after service of formal notices :—

(*a*) By owners 29

(*b*) By Local Authority in default ... ... Nil

C. Proceedings under sections 11 and 13 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which Demolition Orders were made 10

(2) Number of dwelling houses demolished in pursuance of Demolition Orders 2

D. Proceedings under Section 12 of the Housing Act, 1936.

(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil

4. **Housing Act, 1936 (Overcrowding).**

(*a*)	(1)	No of dwellings overcrowded at end of year ...	94
	(2)	No. of families dwelling therein	117
	(3)	No. of persons dwelling therein	668
(*b*)	(1)	No. of cases of overcrowding relieved during the year	15

3 by number of occupants being reduced.
2 by additional accommodation being provided.
1 by sub-tenant removing.
6 by premises being vacated.
2 by adult sons and daughters leaving home.
1 by son sleeping elsewhere.

	(2)	No. of persons concerned in such cases ...	105
(*c*)		No. of new cases of overcrowding reported ...	17
(*d*)		No. of cases in which houses have again become overcrowded after the local authority have taken steps for the abatement of overcrowding	Nil

Inspection and Supervision of Food.

MILK.—There are 51 purveyors of milk from outside districts, 39 retail dairymen, 21 cow keepers and retail purveyors, 36 cow keepers and wholesale purveyors. Four licences are granted for the sale of Accredited Milk, 3 for Tuberculin Tested, 2 for Tuberculin Tested Certified, and 2 for Pasteurised.

There are 39 registered producers of Accredited Milk, one producer of Tuberculin Tested Milk.

MILK SAMPLES.

The following figures show the number and result of examinations of samples taken during the year :—

	No.	TB Pos.	% T.B.
Commercial	38	1	2.6
Accredited	111	6	5.4
Tuberculin Tested ...	2	—	—
T.T. (Certified)	5	—	—
Pasteurised	25	—	—
Totals - -	181	7	3.8

% Postive :—1937—3.8% 1936—6.5% 1935—6.8%

The milk supplied to hospitals and schools in the area is sampled frequently and unsatisfactory supplies eliminated.

SEDIMENT TESTS.

Continuous effort is made to ensure the production of clean milk, and your Inspectors make sediment tests regularly in the course of supervising milking methods. Where dirty results are recorded, advice is given to the producer with a view to eliminating the cause of the entrance of dirt into the milk. Last year 160 tests were made, and, allowing 5 points as the maximum for each test, the total points obtained were 496, which indicates a degree of cleanliness of 61.2%. This should be improved upon, and it is hoped that next year a higher percentage will be reported.

The following table shows the number of and percentage of T.B. samples during the last eight years :—

	No.	T.B.	% T.B.
Commercial Milk	825	45	5·4
Accredited Milk	546	52	9·5
Tuberculin Tested Milk	33	—	—
T.T. (Certified) Milk	27	—	—
Pasteurised Milk	83	—	—
Sterilized Milk	12	—	—
Totals - -	1526	97	6.3

MEAT.—**Private Slaughter Houses.**

1 Registered. 2 Licensed.

Carcases Inspected and Condemned.

	Cattle, excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number Killed	1789	—	53	8338	2520
Number Inspected	1799	—	53	8338	2518
All diseases except Tuberculosis :					
Whole carcases condemned ...	—	—	—	9	3
Carcases of which some part or organ was condemned ...	427	—	1	576	582
Percentage of the number inspected affected with disease other than Tuberculosis ...	263	—	1.9	7	23.2
Tuberculosis only :—					
Whole carcases condemned ...	1	—	—	—	26
Carcases of which some part or organ was condemned ...	99	—	1	1	723
Percentage of the number inspected affected with Tuberculosis	56	—	1.9	.001	29.7

OTHER FOODS.—There are 26 bakehouses, one of which is an " underground bakehouse." All are sanitary and subjected to frequent inspection. There are 16 fish shops and 16 fried fish premises—they are conducted in a cleanly fashion.

8 Jars of Lemon Cheese and 1½ cwt. Currants were found to be unfit for food and destroyed.

Ice Cream.—There are 16 premises where Ice Cream is produced and 16 visits were paid during the year.

14 of the producers make ice cream of the "custard" type.

2 of the producers make ice cream of the "dairy" type.

14 of the producers have no effective means of sterilizing pans and fittings.

12 of the producers adopt the slow cooling method.

4 of the producers adopt the cold mix method.

None of the Ice Cream is pasteurised or homogenised. The premises were at the time of inspections, in a satisfactory and clean condition.

Licensed Premises.—These premises are visited in reference to sanitary conveniences, ventilation, cleanliness, etc. Cellars are inspected and beer pipes examined and the method of cleansing these pipes enquired into.

In 1 case the beer pipes were found to be defective and were renewed.

In 13 instances beer pipes are of lead with tin lining.

In 5 instances beer pipes are of rubber.

In 6 cases beer pipes are of monel metal.

Vessels for collection of waste beer are generally enamel buckets with filters. In 2 cases only is it stated that waste beer is rejected.

Cleansing of beer pipes is carried out in the following manner :—

In 8 cases soda water, then salt and clean water drawn through.

In 10 cases boiling water and soda.

In 1 case salt water, and soda water drawn through in alternate weeks.

In 1 case cold water drawn through.

In 1 case warm water and brush used and warm water pumped through.

In 3 cases cold water and special crystal preparation drawn through.

Glasses are said to be cleaned in the following manner :—

At 8 premises by cold water and draining.

At 13 premises by hot water and cloth.

At 2 premises by hot water and soda.

At 1 premises by hot water and soap.

The above procedure is altered in 5 cases where, during busy periods, the glasses are only swilled and drained. In 7 cases it is said that mops and bottle brushes are used when it is considered necessary.

Drip sinks, taps and pumps were all found to be in a clean condition.

Notices were served during the year for—

(1) insufficient sanitary accommodation—the Brewery Company in this case have promised to provide separate accommodation for females.

(2) insufficient ventilating shaft to drains—remedied.

(3) insufficient ventilation in lounge—remedied.

(4) infestation of cellar and behind skirting boards in bar of cockroaches—in this case the Brewery Company sought my advice and I superintended the work of disinfestation carried out by a private firm and the nuisance has been remedied.

Food Poisoning.—No food poisoning is known to have occurred in 1938.

Sale of Food and Drugs Acts.

Particulars of Samples forwarded to the Public Analyst from the District during the year ending 31st December, 1938.

Name of Sample.	Number Analysed.	Number of Samples not up to Standard or Certified as Adulterated
Almonds (Ground)	3	—
Aspirin	1	—
Boracic (Ointment)	2	—
Butter	4	—
Castor Oil	2	—
Camphorated Oil	1	—
Cheese	1	—
Cheese (Cheshire)	6	—
Coffee	3	—
Cream (Tinned)	1	—
Epsom Salts	1	—
Fish (paste)	3	—
Flowers of Sulphur	1	—
Ginger (Ground)	1	—
Glycerine	2	—
Honey	1	—
Jelly (Crystals)...	1	—
Lard	5	—
Liquorice Powder	4	—
Milk	46	7†
Milk (condensed)	1	—
Oatmeal	1	—
Olive Oil	2	—
Pearl Barley	1	—
Pepper	1	—
Rice (creamed)	1	—
Rice (ground)	2	—
Semolina	1	—
Whisky	2	—
Zinc Ointment	1	—
Totals - -	102	7

† (*a*) 2.3% deficient in non fatty solids. Abnormal.
(*b*) 2.2% extraneous water. See (*e*) below
(*c*) 6 % deficient in fat. Cautioned.
(*d*) 4 % deficient in fat. Cautioned.
(*e*) 3.6% extraneous water. In course of delivery. re (*b*) above. Cautioned.
(*f*) 14.0% deficient in fat. Cautioned.
(*g*) 10.0% deficient in fat. Cautioned.

Prevalence of, and Control over, Infectious Disease.

INFECTIOUS DISEASES GENERALLY.

The prevalence of Infectious Disease of a notifiable character is shown in the following table which gives the case rate per 1,000 of the population 1921-1938.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia	Erysipelas.	Puerperal Pyrexia.
1921	0.00	3.92	1.08	0.00	0.00	0.66	
1922	0.00	3.72	0.56	0.15	0.00	0.61	
1923	0.00	3.17	0.30	0.00	0.00	0.15	
1924	0.10	1.60	0.10	0.10	0.00	0.34	
1925	0.00	2.70	0.29	0.09	0.00	0.48	
1926	0.00	0.6	0.5	0.08	0.00	0.49	0.00
1927	0.00	1.33	1.38	0.00	0.00	0.30	0.12
1928	0.00	3.4	1.9	0.00	0.00	0.55	0.21
1929	0.00	2.9	1.3	0.00	0.00	0.08	0.16
1930	0.00	2.53	3.25	0.00	0.00	0.38	0.11
1931	0.00	3.2	1.97	0.03	0.00	0.3	0.06
1932	0.00	1.81	0.69	0·00	0.00	0.29	0.29
1933	0.00	2.15	0.64	0.03	0.00	0.21	0.29
1934	0.00	4.86	2.20	0.08	0.00	0.54	0.17
1935	0.00	4.6	2.5	0.00	0.00	0.49	0.05
1936	0.00	2.49	2.38	0.00	0.00	0.29	0.15
1937	0.00	2.1	2.4	0.05	0.00	0.38	0.43
1938	0.00	3.46	3.61	0.04	1.80	0.70	0.14

Puerperal Pyrexia is now calculated on the total number of births, live and still, while other figures are calculated per 1,000 of population. On the basis of live and still births registered during the year the rate is :—

Puerperal Pyrexia 8.29.

The General Hospital receiving Maternity Cases is within the district, and the reception of abnormal cases accounts for the excessive number of notifications of Pyrexia.

Registrar-General's Table for notifications of Puerperal Pyrexia.

	England & Wales.	126 County Boroughs & Great Towns inc. London.	148 Smaller Towns (resident pop. 25,000—50,000 at 1931 Census).	London Administrative County.
Puerperal Pyrexia	14.42	18.08	12.51	18.99

The corresponding rates for England and Wales are as follows :—

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Pneumonia
1921		3.64	1.76	0.10	0.35	
1922		2.85	1.37	0.06	0.35	
1923		2.24	1.05	0.08	0.32	
1924		2.16	1.07	0.11	0.33	
1925	0.14	2.36	1.23	0.07	0.39	
1926	0.26	2.10	1.31	0.07	0.38	
1927	0.38	2.16	1.33	0.09	0.38	
1928	0.32	2.61	1.55	0.09	0.42	
1929	0.28	3.05	1.59	0.07	0.45	
1930	0.29	2.76	1.84	0.07	0.45	
1931	0.14	2.05	1.27	0.06	0.38	
1932	0.05	2.12	1.08	0.06	0.36	
1933	0.02	3.21	1.18	0.04	0.05	
1934	0.04	3.76	1.70	0.03	0.51	
1935	0.00	2.96	1.60	0.04	0.42	
1936	0.00	2.53	1.39	0.06	0.40	
1937	0.00	2.33	1.49	0.05	0.37	1.36
1938	0.00	2.41	1.58	0.03	0.40	1.10

Notifiable Infectious Diseases, 1938.

Disease.	Total Cases Notified.	Total Cases Admitted to Hospital.	Total Deaths.
Smallpox	—	—	—
Scarlet Fever	142	119	—
Diphtheria	148	135 plus 10 neg.	10
Enteric Fever	2	1	—
Puerperal Fever	—	—	—
Puerperal Pyrexia	6	5	—
Pneumonia	74	18†	28
Erysipelas	29	17	—
Cerebro-Spinal Fever ...	2	1	1
Acute Poliomyelitis ...	2	2	—
Acute Polio-encephalitis ...	—	—	—
Encephalitis Lethargica ...	—	—	2
Dysentery	—	—	—
Malaria	2	2	—
Chickenpox	28	—	—
Total -	435	300 plus 10 neg.	41

† 31 nursed at home under the Council's Domiciliary Nursing Scheme.

Table of Age Groups, Showing Total Cases Notified and Deaths, 1938.

Disease		Total Cases	Total		0-1		1-2		2-3		3-4		4-5		5-10		10-15		15-20		20-35		35-45		45-65		65 up	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Cases ...		435	220	215	13	1	5	6	16	7	9	11	8	11	63	72	38	31	8	12	23	31	9	14	23	12	5	7
Total Deaths ...		41	21	20	3	3	1	1	...	...	...	2	1	2	3	2	...	...	...	...	1	...	2	1	9	3	1	6
Smallpox	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	Cases	142	66	76	...	...	3	1	5	2	5	5	4	6	25	37	10	11	4	6	7	3	2	5	1	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	Cases	148	66	82	11	...	...	3	7	3	4	5	1	4	17	26	22	16	1	4	2	15	1	3	...	3	...	...
	Deaths	10	3	7	...	...	...	...	...	...	...	2	1	2	2	2	...	...	...	...	...	...	...	1	...	...	...	...
Enteric Fever	Cases	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	Cases	74	42	32	1	1	1	...	1	1	...	...	1	...	11	6	2	2	1	2	9	7	4	2	10	6	1	5
	Deaths	28	16	12	3		1	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	8	3	1	5
Erysipelas	Cases	29	20	9	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	2	1	1	2	11	3	4	2
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	Cases	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
	Deaths	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Acute Poliomyelitis	Cases	2	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Puerperal Pyrexia	Cases	6	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	1	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	Cases	28	20	8	...	...	1	2	2	...	...	1	2	1	10	2	4	2	...	...	1	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria	Cases	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Chickenpox ceased to be a notifiable disease in the Borough on 8th April, 1938.

Table Showing Distribution of Total Cases of Notifiable Diseases, 1938.

Wards.

Disease.	Higher Bebington	Woodhey	Bebington	New Ferry	Park	Sunlight	N'rth Bromborough	S'th Bromborough	Eastham	Poulton	Total
Scarlet Fever	11	8	18	10	5	12	9	31	18	20	142
Diphtheria	12	7	12	18	3	10	16	11	13	46	148
Pneumonia	8	13	17	9	3	2	8	4	2	8	74
Erysipelas	3	2	2	4	1	2	3	3	3	6	29
Enteric Fever	—	—	1	—	—	—	—	—	—	1	2
Ophthalmia Neonator'm	—	1	—	—	—	—	—	—	—	1	2
Chickenpox	—	5	—	1	5	—	1	9	2	5	28
Puerperal Pyrexia ...	1	—	—	—	—	—	—	—	1	4	6
Cerebro Spinal Fever...	1	—	—	—	—	—	—	—	—	1	2
Acute Poliomyelitis ...	—	—	1	—	—	—	—	—	—	1	2
Malaria	1	1	—	—	—	—	—	—	—	—	2
Total	37	37	51	42	17	26	37	58	39	93	437

Tuberculosis 1938.

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Years								
0-1	—	—	—	—	—	—	2	—
1-5	—	—	1	—	—	—	—	—
5-10	1	1	—	—	—	—	—	—
10-15	2	—	—	—	—	—	—	—
15-20	1	3	1	—	—	1	—	—
20-25	1	4	—	—	—	1	—	—
25-35	3	4	—	—	3	3	—	—
35-45	3	2	1	—	3	3	—	—
45-55	1	2	—	—	1	2	—	—
55-65	1	2	—	—	2	—	—	—
65 and upwards	2	—	—	—	—	—	—	—
Totals ...	15	18	3	—	9	10	2	—

Immunisation Against Diphtheria.

An immunisation clinic has been inaugurated and it is hoped that when its establishment becomes known that there will be numerous applicants for its services. The principle underlying the saying that " when the devil was sick the devil a saint would be ; when the devil got well the devil a saint was he " is well exemplified in the behaviour of many persons to the clinic. Before its establishment, when cases of Diphtheria were notified there were grumblings that there was no clinic, and it was constantly quoted that provision for immunisation was made in neighbouring boroughs, but now there seems no very intense or widespread desire to obtain immunisation. In Cork and Aberdeen 50 per cent. of the children under 15 years of age have been immunised. Chester, of English towns, shows the highest proportion but it is only 10 per cent. of the population, or about 45 per cent. of those at risk. Birmingham has 36 per cent. and London 1.17.

> It is probable that if we can continue and extend immunisation for a couple of generations we can eliminate diphtheria as a persistent menace and reduce it to a rare disease of little consequence to public health.

The toll in death at the present time is shown in the following table, and to it should be added the incalculable amount of damage often sustained by the sufferers.

Diphtheria—England and Wales.

—	Deaths of children under 15 years of age.	Death-rate per 1,000 children living under 15 years of age.
1933	2,487	.261
1934	3,826	.402
1935	3,256	.351
1936	2,884	.318

The efficacy of immunisation is beyond question proved by the escape of immunised persons from natural infection. From numerous areas plentiful figures are now available to demonstrate without a shadow of doubt that in comparable groups of immunised and non-immunised children the immunised are protected against infection while the disease pursues its old, often permanently damaging and frequently fatal, course among the non-immunised. Statistics from thousands of observations impress upon any open-minded observer that an enormous advance has been made in preventive medicine. Birmingham City Fever Hospital shows how, by immunisation, the nursing and domestic staffs exposed to constant risk now escape infection. The number of infections acquired was not lessened until immunisation was introduced, and then the diminution in infection occurred only in the sections of the staff which were immunised.

> There is, then, no reasonable doubt that active immunisation, properly performed, is highly effective in protecting the individual against Diphtheria, and in eliminating Diphtheria from any small closed community in which all the inmates may be Schick tested and if necessary, immunised. It may be noted that in the few instances on which Diphtheria in an immunised person, or in a fully immunised community, has been recorded, the infection has almost always been of the Gravis type, and even then the infection has not been severe.

The following note is self-explanatory :—

> In a recent issue of the *Lancet* (February 12th, 1938) there is a communication reporting experience of diphtheria immunisation in Canada, whereby it is shown that diphtheria is indubitably a preventable disease. For instance, in Toronto in 1927, ten years ago, there were 1,223 cases of diphtheria and 114 deaths. In that year only 80 persons were immunised. The following year 12,492 persons were immunised, and the numbers were rapidly increased until 1936 the number of persons treated was 104,449. In this latter year there were only 48 cases of diphtheria and 2 deaths, a result which leaves no doubt that the decline is due to immunisation.

The latest available figures were given in answer to a question in Parliament :—

ENGLAND AND WALES.

Period.	Number of Diphtheria Notifications.	Number of deaths registered and classified as due to Diphtheria.
Oct. to Dec., 1931, inclusive	12,829 (13 weeks)	633
1932	43,399 (52 weeks)	2,339
1933	47,435 (52 weeks)	2,646
1934	68,759 (52 weeks)	4,085
1935	65,084 (52 weeks)	3,488
1936	57,795 (53 weeks)	3,081
	295,301	16,272

Maternity and Child Welfare Centre.

A new Maternity and Child Welfare Centre was completed in the New Ferry Recreation Ground early in 1935.

Extracts from the Senior Health Visitor's Reports.

THE PRE-MATERNITY CLINIC.

Number of Sessions attended by Gynæcologist, 49 :—

Number of new cases examined	335
Number of cases continuing from 1937 ...	61
	396

Births 737. Percentage of mothers attending Clinic 51 per cent.

The Municipal Midwives have attended with their cases.

Record of Clinic attendances for 1938 :—

The Infant Welfare Clinics.

THE NEW FERRY CLINIC.

Attendances of Mothers	6016	
,, Infants	4532	
,, Children 1—5	2918	
		13466

THE BROMBOROUGH CLINIC.

Attendances of Mothers	3552	
,, Infants	2671	
,, Children 1—5	1649	
	——	7872

THE HIGHER BEBINGTON CLINIC.

Attendances of Mothers	3382	
,, Infants	2242	
,, Children 1—5	1524	
	——	7148

Altogether a total of 1,136 children have attended the 3 Centres, 700 of them being under 1 year at their first attendance. This brings the percentage of the notified live births attending Clinics to 97 per cent.

Ages of children attending	366 born in 1938
	337 born in 1937
	216 born in 1936
	120 born in 1935
	72 born in 1934
	28 born in 1933

Total Attendances Mothers all Centres	12950
Total Attendances Infants all Centres	9445
Total Attendances Children all Centres	6091
Total Attendances	28486

(1937—27719)

Ear, Nose and Throat Clinic.

Number of Sessions (Surgeon, Mr. P. Garson)		12
Total number of cases (36 re-admissions) ...	139	
Total number of attendances	187	

Result of cases at the end of 1938 :—

15 cases either had operations for Adenoids only, or for Tonsils and Adenoids.

2 cases refused treatment.

34 cases were examined, advised and discharged.

18 cases reached school age, and were referred to the School Medical Service.

27 cases were discharged (pro tem.) after home treatment to be supervised by the Health Visitors.

58 cases are to continue under observation.

The Eye Clinic.

Number of Sessions (Mr. Dunlop Hamilton, Surgeon Oculist)	9
Number of cases	58
Re-examinations	48
Referred to Hospital for Operation	1
Referred for Spectacles	3
Referred to Health Visitors for supervision of home treatment	22
To be recalled for further examination	43
Referred to School Medical Service	2
Discharged	3

One case of Ptosis was referred to the patient's own Doctor and one case of Blepharitis was successfully treated.

The Toddlers' Clinic 3 to 5 years.

Medical Officer—Dr. J. B. Yeoman, Medical Officer of Health.

Number of Sessions held	47
Children Examined	553
Referred to Hospitals	8
Referred to Eye Clinic	24
Referred to Ear Clinic	55
Referred to Orthopædic Clinic	37
Requiring dental treatment	77
Referred to Health Visitors for special home supervision	44
Referred to District Nurses for treatment	9

For a new Clinic, its present success is very gratifying. Most of the defects were of a minor character, but unless treated would develop into major ones and the clinic hopes to reduce the number of defective children reaching school age.

Home Help Service.

Twenty-six cases have been under the care of the Home Help.

Child Life Protection (Nurse Children).

Seven children have been under the guardianship of the council during 1938.

Four children have been removed to other areas during the year.

All the children have very good homes, and have been very well looked after.

Three children remain on the Register for 1939.

Deaths of Infants under 1 Year.

The causes of death are given as below :—

Prematurity	4
Maldevelopment	5
Jaundice	2
Pneumonia or Bronchitis	7
Heart Disease	1
Pyloric Stenosis	1
Suffocation	1
Intussusception	1
Measles	1
Gastro-enteritis	2
Tuberculous Meningitis	1
Whooping Cough	1
Accident (Swallowed an open safety pin)	1
	28

Deaths between 1 and 5 years were 14. Causes given as under :—

Pneumonia	4
Diphtheria	5
Measles	1
Burns or Scalds	2
Sepsis	1
Heart Disease	1
	14

It will be noticed that there were 5 deaths from Diphtheria.

STATISTICS.

The total visits paid by the Health Visitors were :—

To Expectant Mothers (first visits 197) total visits ...	304
To Children under 1 year of age (first visits 727) total visits	2586
To Children between 1 and 5 years of age, total visits...	4537
To Infant Life Protection Children, total visits ...	46
To Infants or Children suffering from Measles (first visits 186) total visits	316
To Infants or Children suffering from Whooping Cough (first visits 100) total visits	193
To following up Children attending the Special Clinics	400
To Superintendent Nurse's visits to Home Helps and Free Milk Cases, Visits of Supervision	2492
	10874

Orthopædic Clinic.

Dr. Hartley Martin reports as follows :—

I have the honour to report upon the work done at the Orthopædic Clinic held at New Ferry Child Welfare Centre during the twelve months ending December, 1938.

Eighteen monthly sessions have been held, at which 121 New Cases have been seen and 395 re-examinations have been made (an average of 28.7 cases per session).

These figures are elaborated as follows :—

	In relation to school age.		
New cases.	Under	Of	Over
Non-Tuberculous ...	98	26	—
Tuberculous ...	—	2	—
Re-examinations.			
Non-Tuberculous ...	223	159	8
Tuberculous ...	—	5	—

Table I shows all cases on the register grouped into disease and age categories. The number of cases discharged and the reasons for discharge are also shown.

Of the 288 cases on the Register during the year, 5 were admitted to hospital for treatment.

Congenital Deformity.—2 cases (one under school age). Stay in hospital 192 and 28 days.

Infantile Paralysis.—1 case (of school age). Stay in hospital 35 days.

Acquired Deformities.—2 cases (of school age). Stay in hospital 33 and 117 days.

The work of the Masseuse in the twice weekly sessions is of great value in the prevention of deformity and the establishing of a cure. 1080 treatments have been given to the 44 cases on the register, 18 new cases were referred and 20 discharged on termination of treatment.

In Table II. the cases on the Massage register are shown, analysed into age groups and disease categories.

The co-operation of the staff of the Child Welfare Service in ascertainment is again gratefully acknowledged and as the number of New Cases show this department provides 77% of Ascertainment for the Clinic.

The cases referred from Neston, seem to resent the distance of the Clinic from their houses, and in almost every case find it financially impossible to attend twice weekly for Massage.

Visits by Surgeon	18
Attendances by Orthopædic Sister ...	30
New Cases Examined	121
Re-examinations	395

Analysis of Cases.

	Under School Age		Of School Age		Over School Age	
	Boys	Girls	Boys	Girls	Boys	Girls
New Cases—						
Non-Tuberculous	60	33	10	16	0	0
Tuberculous	0	1	1	0	0	0
Re-examinations—						
Non-Tuberculous	112	111	78	81	3	5
Tuberculous	0	0	4	1	0	0

Massage and Remedial Exercises Department.

	Boys.	Girls	Total
Number of Patients Treated	17	27	44
,, Attendances of Cases	444	636	1080
,, New Cases Referred for Treatment	7	11	18
,, Cases in which the Treatment has been Terminated	5	14	19

Table 1.

DISEASE CATEGORIES.	Remaining December 1937.			New Cases 1938.			Remaining December 1938.			Discharged 1938.						
	In Relation to School age.			In Relation to School age.			In Relation to School age.									
	Under	Of	Over	Under	Of	Over	Under	Of	Over	Cured.	Relieved.	Over age—Relieved	Left district.	Refused treatment.	Unsuitable.	Died.
Infantile Paralysis ...	1	5	4	—	2	—	1	5	3	—	—	2	1	—	—	—
Spastic Paralysis ...	2	8	—	2	—	—	2	9	—	—	—	—	—	1	—	—
Rickets	5	4	—	1	—	—	1	3	—	3	—	—	1	2	—	—
T.B. Osteitis & Arthritis	—	5	—	—	2	—	—	5	—	2	—	—	—	—	—	—
Non-Tuberculous do.	—	2	—	—	—	—	—	—	—	2	—	—	—	—	—	—
Deformities, Congenital	16	9	—	6	3	—	14	11	—	3	—	—	3	2	1	—
,, Acquired	68	30	—	54	13	—	78	36	—	30	1	—	5	14	—	1
Diagnosis	6	2	—	30	8	—	6	1	—	—	—	—	1	2	36	—
Totals - -	98	65	4	93	28	—	102	70	3	40	1	2	11	21	37	1
	—			—			—			—						
	—						—									

Massage Return. Table 2.

Disease Categories.	ATTENDANCES										CASES	
	Of School Age						Under School Age		Over School Age			
	Boys			Girls								
	Attending School	Not Attending School	Attending Special School	Attending School	Not Attending School	Attending Special School	Boys	Girls	Boys	Girls	Number of Cases	% of Total Cases
Infantile Paralysis ...	17	—	—	35	—	—	—	5	—	41	6	13.6
Spastic Paralysis... ...	13	—	—	96	—	—	8	—	—	—	6	13.6
Rickets	—	—	—	34	—	—	—	—	—	—	1	2.5
Tuberculous—Osteitis and Arthritis	72	—	—	18	—	—	—	—	—	—	2	4.5
Non Tuberculous ditto	—	—	—	—	—	—	—	—	—	—	—	
Congenital Deformities ...	164	—	—	45	—	—	—	80	—	—	8	18.
Acquired Deformities ...	188	—	—	148	—	—	42	134	—	—	21	47.7
Totals - -	394	—	—	376	—	—	50	219	—	41	44	
Totals - -	770						269		41			
Percentages	71.3 %						24.9 %		3.8 %			

1938.

	Cases.			Vision unimpaired.	Vision impaired.	Total Blindness.	Deaths.
	Notified.	Treated.					
OPHTHALMIA NEONATORUM.		At Home.	In Hospital				
	2	0	2	2	Nil.	Nil	Nil.

Hoylake Urban District.

The Urban District was constituted in 1889 and on 1st April, 1933, the Parishes of Caldy, Frankby, Greasby, Grange and part of Saughall Massie were added.

Statistics and Social Conditions of the Area.

Area (acres)	5,934
Registrar-General's Estimate of Resident Population (mid-1938)	23,010
Number of inhabited houses (1938)	7,300
Rateable value	£263,530
Sum represented by a penny rate	£1,030

The following table shows the Natural Increase (that is the excess of births over deaths) of population from 1921-1938.

Year.	Population.	Natural Increase per 1,000 Population.
1921	16,530	5.6
1922	16,560	3.1
1923	16,580	3.8
1924	16,880	1.2
1925	17,230	1.8
1926	17,950	Deaths exceeded Births,—0.3
1927	17,720	1.6
1928	17,790	Deaths exceeded Births,—1.2
1929	17,610	do. —2.3
1930	16,730	do. — .2
1931	16,100	.31
1932	16,780	Deaths exceeded Births,—3.4
1933	19,110	do. —1.9
1934	20,220	do. —1.8

Year.	Population.	Natural Increase per 1,000 Population.	
1935	21,000	Deaths exceeded Births,	—1.5
1936	21,610	do.	—3.05
1937	22,600	0.75	—
1938	23,010	Deaths exceeded Births,	—1.4

Natural increase of population (*i.e.*, excess of Births over Deaths) 1921-1937 (England and Wales).

Year	per 1,000 Population	Year	per 1,000 Population
1921	10.3	1930	4.9
1922	7.6	1931	3.5
1923	8.1	1932	3.3
1924	6.6	1933	2.1
1925	6.1	1934	3.0
1926	6.2	1935	2.9
1927	4.3	1936	2.7
1928	5.0	1937	2.5
1929	2.9		

Extracts from Vital Statistics for the Year 1938.

These statistics are calculated on the population of 23,010 supplied by the Registrar-General.

Live Births.

	Males.	Females.	Total.
Legitimate ...	123	127	250
Illegitimate ...	6	7	13
	129	134	263

Birth Rate 11.85 per 1,000 of population.

Live Birth Rate per 1,000 estimated resident population (1938) 148 smaller towns (population 25,000-50,000 census 1931) England and Wales 15.4.

Still Births.

	Males	Females	Total
Legitimate ...	6	7	13
Illegitimate ...	0	0	0
	6	7	13

Still Birth Rate 47.0 per 1,000 Live and Still Births or .56 per 1,000 of the population.

Table of Number of Births and Birth Rates, 1922—1937.

Year.	Number.	Birth Rate.	Year.	Number.	Birth Rate.
1922	241	14.5	1930	163	9.7
1923	238	14.3	1931	182	11.3
1924	201	11.9	1932	141	8.4
1925	217	12.5	1933	205	10.7
1926	172	9.5	1934	188	9.3
1927	190	10.7	1935	224	10.7
1928	168	9.4	1936	224	10.4
1929	164	9.3	1937	272	12.0

The average number of births per annum in the years 1922-1937 was 199.

Birth Rate England and Wales (1938) 15.1.

Birth Rate in the Administrative County of Chester (1937) 14.2.

Deaths.

Total, 296 ... Males, 147 ... Females, 149

Death Rate 12.86. The corrected Death Rate was 11.83.

Table of Number of Deaths and Death Rates, 1922-1937.

Year.	Number.	Death Rate.	Year.	Number.	Death Rate.
1922	191	11.5	1930	196	11.7
1923	176	10.6	1931	177	11.0
1924	180	10.6	1932	196	11.7
1925	185	10.7	1933	242	12.7

Year.	Number.	Death Rate.	Year.	Number.	Death Rate.
1926	177	9.8	1934	226	11.2
1927	161	9.0	1935	256	11.2
1928	188	10.6	1936	290	13.4
1929	204	11.6	1937	255	11.3

The Death Rate per 1,000 estimated resident population in the 148 smaller towns (25,000-50,000 census 1931) was 11.0 (1938).

Death Rate in England and Wales (1938) was 11.6 per 1,000 of the population.

The average number of deaths per annum during the period 1922-1937 was 206.

Ratio of local adjusted death rate to National Rate was 1.02 (1936).

Death Rate in the Administrative County of Chester was 12 bearing a ratio of 1 to the National Rate (1936).

Percentage of Deaths occurring in Public Institutions 17%.

Deaths from Puerperal causes :—

	Deaths.	Rate per 1,000 total (live and still) births.	Rate per 1,000 live births.
Puerperal sepsis	0	0.00	0.00
Other puerperal causes ...	0	0.00	0.00
Total	0	0.00	0.00

The figures for England and Wales :—

Puerperal sepsis	0.86	0.89
Other puerperal causes	2.11	2.19
Total	2.97	3.08

Death Rate of Infants under 1 year of age :—

	Number	Rate
All infants per 1,000 live births	6	22.8
Legitimate infants per 1,000 legitimate live births...	6	24.0
Illegitimate infants per 1,000 illegitimate live births	0	0

Table of Infantile Mortality, 1921-1937.

Year	Rate per 1,000 Births	Year	Rate per 1,000 Births	Year	Rate per 1,000 Births
1921	57.0	1927	36.7	1933	49.0
1922	53.9	1928	65.0	1934	37.0
1923	54.6	1929	49.0	1935	40.1
1924	44.2	1930	49.0	1936	54.0
1925	50.7	1931	49.0	1937	33.0
1926	58.1	1932	14.1		

Registrar-General's Table (1938) :—	Deaths under 1 year per 1,000 registered live births
England and Wales	53
126 County Boroughs and great towns including London	57
148 smaller towns (25,000-50,000 census 1931)	51
London Administrative County	57
Deaths from Measles (all ages)	2
Deaths from Whooping Cough (all ages)	1
Deaths from Diarrhœa (under 2 years of age)	0
Deaths from Cancer (all ages)	48

In the preceding period of five years there were 6 deaths from Measles; 4 deaths from Whooping Cough; and 4 from Diarrhœa (under 2 years of age).

Causes of Death.

	All Causes.	Males.	Females	Total.
1.	Typhoid and Paratyphoid Fevers	0	0	0
2.	Measles	2	0	2
3.	Scarlet Fever	0	0	0
4.	Whooping Cough	0	1	1
5.	Diphtheria	1	1	2
6.	Influenza	2	0	2
7.	Encephalitis Lethargica	1	0	1
8.	Cerebro-Spinal Fever	0	0	0
9.	Tuberculosis of Respiratory System	7	6	13
10.	Other Tuberculous Diseases	0	0	0
11.	Syphilis	0	0	0
12.	General Paralysis of the Insane, Tabes Dorsalis	0	0	0
13.	Cancer, Malignant Disease	21	27	48
14.	Diabetes	2	2	4
15.	Cerebral Hæmorrhage, &c.	8	8	16
16.	Heart Disease	39	41	80
17.	Aneurysm	0	0	0
18.	Other Circulatory Diseases	11	22	33
19.	Bronchitis	0	2	2
20.	Pneumonia (All forms)	10	7	17
21.	Other Respiratory Diseases	0	2	2
22.	Peptic Ulcer	2	0	2
23.	Diarrhœa, &c. (under 2 years)	1	0	1
24.	Appendicitis	1	3	4
25.	Cirrhosis of Liver	1	1	2
26.	Other Diseases of the Liver, &c.	0	0	0
27.	Other Digestive Diseases	10	4	14
28.	Acute and Chronic Nephritis	4	1	5
29.	Puerperal Sepsis	0	0	0
30.	Other Puerperal Causes	0	0	0
31.	Congenital Debility, Premature Birth, Malformations, &c.	3	5	8
32.	Senility	1	2	3
33.	Suicide	3	1	4
34.	Other Violence	6	1	7
35.	Other Defined Diseases	11	12	23
36.	Causes Ill-defined or Unknown	0	0	0
37.	Diarrhœa (2 years and over)	0	0	0
	Special Causes (*included in No.* 35 *above*)			
	Smallpox	—	—	—
	Poliomyelitis	—	—	—
	Polio-encephalitis	—	—	—
	Totals - -	147	149	296

General Provision of Health Services for the Area.

Hospitals provided or subsidised by the Local Authority or by the County Council.

See under North-West Cheshire p. 17.

List of Adoptive Acts, Bye-Laws, and Regulations.

Acts and Orders.

The following is a list of the Local Acts of Parliament, Provisional and other Orders, and Adoptive Acts in force in the District :—

PRIVATE ACTS.

Hoylake and West Kirby Improvement Act, 1897	15th July, 1897
Hoylake & West Kirby Improvement Act, 1900	10th July, 1900
Hoylake & West Kirby Urban District Council Act, 1925	7th Aug., 1925
Hoylake Urban District Council Act, 1935	2nd Aug., 1935

PROVISIONAL ORDERS.

Hoylake & West Kirby Electric Lighting Order, 1897	15th July, 1897
Hoylake & West Kirby Order, 1906	8th March, 1906

ADOPTIVE ACTS.

Baths and Washhouses Act, 1846.
Public Health Acts Amendment Act, 1890, Parts II. to V.
Infectious Disease (Prevention) Act, 1890.
The Private Street Works Act, 1892.
Small Dwellings Acquisition Acts, 1899—1923.
Health Resorts and Watering Places Act, 1921.
The Local Govt. and other Officers' Superannuation Act, 1922.
The Public Health Act, 1925.

ORDERS OF THE COUNTY COUNCIL.

7th November, 1889—Constitution of the Urban District.

3rd December, 1914—Dividing the Hoylake and West Kirby Urban Sanitary District into four wards. Altering the boundaries between the Urban District and the Wirral Rural District.

County of Chester Review Order, 1933, extension of District.

POWERS UNDER THE FOLLOWING SECTIONS OF THE PUBLIC HEALTH ACTS (AMENDMENT ACT, 1907).

Part 2.—Sections 18, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30 and 33	15th Dec. 1909.
Part 3.—The whole of	
Part 4.—Sections 52, 53, 54, 55, 56, 57, 58, 59, 62, 63, 64, 65, 66 and 68	22nd Nov. 1928.
Part 6.—The whole of	
Part 7.—Sections 79, 81 and 85	29th Dec. 1908.
Part 8.—The whole of	
Part 9.—The whole of	15th Dec. 1909.
Part 10.—Sections 93 and 95	

COUNCIL BYELAWS.

BYELAWS.	*Dates of Adoption.*
Bathing	Aug. 21, 1899
Seashore	Nov. 20, 1899
Horses, Ponies, Mules, or Asses	Dec. 17, 1900
Prevention of Nuisances	April 3, 1901
West Kirby Park	June 16, 1902
Fire Brigade	Dec. 19, 1911
New Streets and Buildings	April 20, 1914 Sep. 21, 1926
Grange Hill Recreation Ground	Dec. 15, 1914
Hackney Carriages	June 15, 1920
Meols Parade, North Parade and South Parade (Motoring)	Feb. 15, 1921
Pleasure Boats and Vessels	Dec. 18, 1923
Foreshores	July 17, 1923 Oct. 16, 1923

BYELAWS.	*Dates of Adoption.*
Slaughterhouses	Oct. 21, 1924
Offensive Trades	June 15, 1925
Steam Organ, etc.	Nov. 17, 1925
Meols Parade, North Parade and South Parade (Sale and Hawking)	July 19, 1927
Wireless Installations	Jan. 17, 1928
Cemetery Regulations, Fees, &c.	Feb. 19, 1929
Driving Motor Vehicles on the Seashore ...	Oct. 14, 1930
Foreshores	Mar. 3, 1931
Hackney Carriages	Sept. 15, 1931
Advertisements	Oct. 20, 1931
New Streets and Buildings	Jan. 7, 1936

Sanitary Circumstances of the Area.

WATER.—District Council Supply (softened). The area added to the district in 1933 is supplied from the mains of the West Cheshire Water Board with softened water. The supply is satisfactory both in quality and quantity. Examinations are made Quarterly of the Council's supply and of the West Cheshire sources. Certificates of recent examinations are as follows :—

West Cheshire Water Board.

	Chemical Results in parts per 100,000
Appearance	Clear and bright
Colour	Normal. Odour, none
Reaction pH	Neutral 7.0. Free Carbonic Acid—2.4.
Electric Conductivity at 20 deg. C. ...	515
Total Solids, 180 deg. C.	34.5
Chlorine in Chlorides	5.7
Nitrogen in Nitrates	0.28 Nitrites absent
Hardness : Permanent	0.0 Grains per gallon
Temporary	10.0 ,, ,, ,,
Total	10.0 ,, ,, ,,
Metals	Absent
Free Ammonia	0.0024
Albuminoid Ammonia	0.0000
Oxygen absorbed in 4 hrs. at 80 deg. F. ...	0.0000
	Bacteriological Results.
No. of Bacteria per c.c.	
On Agar in 3 days at 20 deg. C. ...	7
On Agar in 1 day at 37 deg. C.	2
The Bacillus Coli	— Absent in 100 cc.
Bacillus Welchii ... ... (B. Enteritidis Sporogenes)	— Absent in 100 cc.

Report.—This is a clear and bright water of normal colour and neutral reaction. It is of moderate hardness, contains no excess of salinity, and is entirely free from metals.

The water is of a very high standard of organic and bacterial purity and is pure and wholesome, suitable for Public Supply purposes.

Mark and denomination of the sample.	Grange Hill Supply.	Newton Supply.	Town Mains.
Total solid matter in solution	48.08	30.08	40.04
Oxygen required to oxidise			
(in 15 mins.)	none	none	none
(in 3 hours)	none	none	none
Ammonia	none	none	none
Ammonia from Organic matter (by distillation with alkaline permanganate) ...	none	none	none
Nitrogen as Nitrates	0.53	0.34	0.45
Nitrogen as Nitrites	none	none	none
Combined Chlorine	12.35	3.90	10.50
Hardness (expressed in Degrees)			
Temporary	6.2	9.0	7.0
Permanent	11.0	4.6	2.8
Total	17.2	13.6	9.8

Observations.

Grange Hill Supply—pH value 7.1.

The water was clear, bright, colourless and odourless. It was free from Lead and Copper and from solid matters in suspension. The results of the analysis show that the very high state of organic purity remains unaltered.

Newton Supply—pH value 7.5

The sample was clear, bright, colourless and odourless. It was free from Lead and Copper and from solid matter in suspension. The results of the analysis show that the very high state of organic purity remains unaltered.

Town Mains—pH value 7.1

The water was clear, bright, colourless and odourless. It was free from Lead and Copper and from solid matters in suspension. The softening Process has not introduced anything of an objectionable nature into the supply and the water is in every way well suited for drinking and all domestic purposes.

BACTERIOLOGICAL REPORT.

(*a*) Newton Supply—

True B. Coli absent in 100 ccs.

Number of Organisms on Agar at 37 deg. C.—83 per 1 cc.

Number of Organisms on Agar at 22 deg. C.—10 per 1 cc.

(*b*) Town Mains, The Quadrant—

True B. Coli absent in 100 ccs.

Number of Organisms on Agar at 37 deg. C.—2 per 1 cc.

Number of Organisms on Agar at 22 deg. C.—3 per 1 cc.

(*c*) Grange Hill Supply—

True B. Coli absent in 100 ccs.

Number of Organisms present at 37 deg. C.—0 per 1 cc.

Number of Organisms present at 22 deg. C.—1 per 1 cc.

Remarks.—All the samples of water from a bacteriological point of view are satisfactory and suitable for potable purposes.

RIVERS AND STREAMS.—Pollution of streams and watercourses by overflows from cesspools in connection with twelve dwelling-houses has been abated. In eight cases the drains were connected to the sewer and in the remaining four the cesspools were re-conditioned,

DRAINAGE AND SEWERAGE.—It is a well sewered town and extensions are constructed as it grows. Disposal is into tidal waters. At Hoylake and Meols there are retention tanks with Penstock valves so that discharge takes place only on the ebb-tide. Surface water is carried off by the Birket, the Marine Lake, West Kirby, and outlets into the Estuary of the Dee.

Caldy drains to the Dee, Frankby, Greasby, Saughall Massie drain to the North Wirral Outfall Sewer, and part of Grange drains into West Kirby Sewers.

CLOSET ACCOMMODATION.—Water closets of a good type are the general rule. In the outlying areas many houses have more primitive arrangements, and during the year there were conversions of eight pail closets and privies to water closets.

SCAVENGING.—Scavenging is well carried out. Refuse is removed systematically by Council workmen and conveyed to the Pulverising Works. No accumulation of stable manure is permitted for a longer period than seven days. The Pagefield System of Collection is in use. Fish offal is collected daily.

SANITARY INSPECTION OF THE AREA.—The following table submitted by the Inspector, gives a summary of the sanitary work :—

Summary of Work Done by the Sanitary Inspectors in the Year, 1938.

Nature of Inspections Made.	Number of Inspections	Number of Notices Served		Result of Service of Notices	
		Informal	Statutory	C'mplied with	Rem'ng. in hand
Dwelling Houses (General)	557	152	28	166	14
Re-inspections	855	0	0	0	0
Housing Inspections	46	40	6	44	2
Re-inspections	214	0	0	0	0
Re-visits to Overcrowded Houses	40	0	0	0	0
Houses measured to Establish Permitted Nos.	17	0	0	0	0
Tents, Vans and Sheds	23	0	0	0	0
Camps	36	2	0	2	0
Privies, Earth and Pail Closets	28	3	0	3	0
Cesspools	40	11	1	11	1
Drainage	151	21	4	23	2
Courts, Yards and Passages	20	3	1	3	1
Ditches, Watercourses, etc.,	11	1	0	1	0
Keeping of Animals	32	2	0	2	0
Offensive Trades	21	1	0	1	0
Slaughterhouses	198	1	0	1	0
Butchers' Shops	49	9	0	9	0
Food Premises	48	7	0	7	0
Ice Cream	45	1	0	1	0
Bakehouses	37	15	0	15	0
Shops Act	170	17	0	17	0
Dairies	79	12	0	12	0
Cowsheds	121	20	0	18	2
Piggeries	12	0	0	0	0
Schools	33	2	2	2	2
Public Conveniences	5	1	0	1	0
Infectious Diseases	147	0	0	0	0
Re-visits	17	0	0	0	0
Rat Infestations	41	4	0	4	0
Verminous Premises	48	5	0	5	0
Smoke Observations	16	4	1	5	0
Places of Entertainment	4	0	0	0	0
Offices, etc.	23	0	0	0	0
Factories	122	21	0	21	0
Housing Estate	45	0	0	0	0
Bedding removed for disinfection	32	0	0	0	0
Water Supply	7	1	0	1	0
Offensive Accumulations	30	13	5	17	1
Water Samples	3	0	0	0	0
Licensed Premises	5	1	0	1	0
Milk Samples	89	0	0	0	0
Miscellaneous	120	0	0	0	0
Total	3637	370	48	393	25

1. **Inspections** for purposes of provisions as to health. Including Inspections made by Sanitary Inspectors.

Premises. (1)	Number of Inspections (2)	Written Notices (3)	Occupiers Prosecuted (4)
Factories with mechanical power	37	6	—
Factories without mechanical power	43	5	—
***Other Premises** under the Act (including works of building and engineering construction but not including outworkers' premises) ...	42	10	—
* Electrical Stations should be reckoned as factories.			
Total	122	21	Nil

2. Defects found.

Particulars. (1)	Number of Defects. Found. (2)	Remedied (3)	Referred to H.M. Inspector. (4)	N'ber of offences in respect to which Prosecutions were instituted (5)
Want of cleanliness (S. 1)	10	10	—	—
Overcrowding (S. 2)	—	—	—	—
Unreasonable temperature (S. 3)	—	—	—	—
Inadequate ventilation (S. 4)	—	—	—	—
Ineffective drainage of floors (S. 6)	1	1	—	—
Sanitary conveniences (S. 7) — insufficient	2	1	—	—
Sanitary conveniences (S. 7) — unsuitable or defective ...	4	4	—	—
Sanitary conveniences (S. 7) — not separate for sexes ...	1	1	—	—
Other offences ... ... (Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921 and re-enacted in the third Schedule to the Factories Act, 1937).	23	6	17	—
Total	41	23	17	Nil

SHOPS.—149 visits of inspection were made. 12 notices were served re absence of heating facilities. 4 notices were served re separate accommodation for each sex. 1 notice was served re insufficient ventilation.

All the notices were complied with.

OFFICES.—23 visits were made to offices. 1 formal notice was served re separate accommodation for each sex. The notice was complied with.

CAMPING SITES.—Control is exercised over the use of land for camping purposes under the provisions of section 23, of the Hoylake Urban District Council Act, 1935 and bye-laws made thereunder. The consent of the Council is necessary, with certain exemptions, before land in those parts of the district which are subject to bye-laws, can be used for camping purposes. Consent has been given to the establishment of one camp, the number of campers resident at the peak period being 100. Proceedings were taken in one case where land was used for camping purposes without Council consent, the defendant being fined £3.

SMOKE ABATEMENT.—16 smoke observations were made during the year. Improvement was effected to one plant by the installation of a calorifier.

SWIMMING BATHS.—There are two open air public baths in the district—Hoylake Baths and West Kirby Marine Lake. A Candy's Filtration Plant and Chlorinator are installed at Hoylake Baths. The Marine Lake is supplied from the waters of the estuary which are not clorinated.

Certificate of bacteriological examination of sample from Hoylake Baths is as follows :—

Probable number of B. Coli in 100 cc. ...	0
Agar count at 22 deg. C. per cc.	50
Agar count at 37 deg. C. per cc.	7

No organisms of the typhoid and Dysentery Groups found.

Streptococci —none found.

C. Welchii —none found.

REMARKS.—From these findings the water is quite suitable for a swimming bath.

ERADICATION OF BED BUGS.

(1) The number of :—

(*a*) Council Houses—

(i.) Infested	Nil
(ii.) Disinfested	Nil

(*b*) Other houses—

(i.) Infested	21
(ii.) Disinfested	21

(2) The methods employed for freeing infested houses from bed bugs :—

(1) 4 houses were treated with Hydrocyanic Acid Gas.

(2) 20 houses were treated with insecticide after skirtings, etc., had been removed.

(3) The methods employed for ensuring that the belongings of tenants are free from vermin before removal to Council houses:—

Fumigation with Hydrocyanic Acid Gas.

(4) Whether the work of disinfestation is carried out by the Local Authority or by a contractor :—

20 houses were treated with insecticide by the Local Authority.

4 houses were treated with Hydrocyanic Acid Gas by a Contractor.

(5) The measures taken by way of supervision or education of tenants to prevent infestation after cleansing :—

Instructions are given to tenants to report recurrence of Infestation. Colouring or painting of walls rather than papering is advocated.

SCHOOLS.—Systematic visits are paid to ensure that the sanitary condition of schools is satisfactory. Improvements effected have been the provision of a flushing apparatus to the urinal at one school and the repaving of a play-ground of another. Negotiations are in progress for the modernisation of the sanitary conveniences at two schools.

1. Inspection of Dwelling Houses during the year.

(1) (*a*) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	612
(*b*) Number of inspections made for the purpose	1069
(2) (*a*) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925-1932	46
(*b*) Number of inspections made for the purpose	214
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	202

2. Remedy of Defects during the Year without Service of Formal Notices.

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	152

3. Action under Statutory Powers during the Year.—

A. Proceedings under sections 9, 10 and 16 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	6
(2) Number of dwelling houses which were rendered fit after service of formal notices :—	
(*a*) By owners	6
(*b*) By Local Authority in default of owners ...	Nil

B. Proceedings under Public Health Acts.

(1)	Number of dwelling houses in respect of which notices were served requiring defects to be remedied	28
(2)	Number of dwelling houses in which defects were remedied after service of formal notices :—	
	(*a*) By owners	27
	(*b*) By Local Authority in default of owners ...	Nil

C. Proceedings under sections 11 and 13 of the Housing Act, 1936.

(1)	Number of dwelling houses in respect of which Demolition Orders were made	Nil
(2)	Number of dwelling houses demolished in pursuance of Demolition Orders	Nil

D. Proceedings under section 12 of the Housing Act, 1936.

(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil

4. **Housing Act, 1936 (Overcrowding).**

A.	(1)	Number of dwelling houses overcrowded at the end of the year	8
	(2)	Number of families dwelling therein	8
	(3)	Number of persons dwelling therein	66
B.		Number of new cases of overcrowding reported during the year	2
C.	(1)	Number of cases of overcrowding relieved during the year	9
	(2)	Number of persons concerned in such cases ...	76

D. Particulars of any cases in which dwelling houses have again become overcrowded during the year after the local authority have taken steps for the abatement of overcrowding ... Nil

E. Any other particulars with respect to overcrowding conditions upon which it may be desirable to report.—

Milk Supply.

The registers show 22 cowkeepers and wholesale purveyors of milk, 7 cowkeepers and retail purveyors of milk, 25 dairymen and retail purveyors of milk, 11 retail purveyors of milk are from other areas. The shippons at two farms have been reconditioned and the shippon at another extended. A dairy and sterilizer have been provided at one farm. 2 milking machines have been installed during the year. Sediment tests are taken during milking time. Of a total of 56 discs, 37 were clean, 16 moderate and 3 dirty.

Designated Milks.—The number of designated milk licenses issued was 25. 15 to sell Tuberculin Tested, 2 to bottle Tuberculin Tested, and 6 to sell Accredited. 2 supplementary licenses were issued—one to sell Tuberculin Tested and one to sell Accredited. One farm holds a licence to produce and bottle Tuberculin Tested Milk.

7 samples of designated milk were submitted to the Methylene Blue Reduction Test and were all satisfactory. 1 sample submitted to coliform test and bacterial count proved satisfactory. 1 sample of pasteurised milk examined by the phosphotase test was considered to be satisfactorily pasteurised.

58 samples of milk were examined for tubercle bacilli. 6 were returned positive and the diseased cows traced and slaughtered.

Meat and Other Foods.

One licensed slaughterhouse went out of use as such during the year leaving 3 licensed slaughterhouses in the district. There are five slaughtermen registered.

198 visits were paid for the purpose of meat inspection, 13 cows, 72 calves, 906 sheep, and 97 pigs being examined. 540 lbs. of diseased meat were surrendered. 439 lbs. of meat were tuberculous. 48 visits were paid to butchers' shops in the area. 7 notices being served all of which were complied with.

CARCASES INSPECTED AND CONDEMNED.

	Cattle excluding Cows.	Cows.	Calves.	Sheep and Lambs.	Pigs.
Number Killed	13	—	72	906	97
Number Inspected	13	—	72	906	97
All diseases except Tuberculosis :					
Whole carcases condemned ...	—	—	—	—	—
Carcases of which some part or organ was condemned...	2	—	—	17	13
Percentage of the number inspected affected with disease other than Tuberculosis ...	15·4%	—	—	1·9%	13·4%
Tuberculosis only :—					
Whole carcases condemned...	—	—	—	—	3
Carcases of which some part or organ was condemned...	1	—	—	—	12
Percentage of the number inspected affected with Tuberculosis	7·7%	—	—	—	15·4%

Ice Cream.

The Hoylake Urban District Council Act, 1935, gives the Council power to register manufacturers and vendors of ice cream and other similar commodities, and also their respective premises.

The register shows 24 manufacturers and their premises, 56 vendors and premises.

All ice cream premises are visited prior to registration and a report submitted to the Council for their consideration.

Periodical inspections are made during the season.

Bakehouses.

37 visits were paid to the 28 bakehouses on the list. 15 notices were served, all of which were complied with.

Fish Friers.

The premises of 9 fish friers are registered. Systematic inspections are made to ensure compliance with the bye-laws.

Sale of Food and Drugs Acts.

Particulars of Samples forwarded to the Public Analyst from the District during the year ending 31st December, 1938.

Name of Samples.	Number Analysed.	Number of Samples not up to Standard or Certified as Adulterated
Almonds (Ground)	1	—
Boracic Ointment	2	—
Butter	1	—
Castor Oil	1	—
Camphorated Oil	2	—
Cheese	1	—
Cheese (Cheshire)	1	—
Coffee	1	—
Cream (Fresh)	1	—
Curry (Powder)	1	—
Epsom Salts	2	—
Figs (Syrup of)...	1	—
Fish (Paste)	2	—
Ginger (Ground)	1	—
Glucose (Tablets)	1	—
Glycerine	2	—
Iodised Throat Tablets ...	1	—
Jelly (Table)	1	—
Lard	1	—
Liquid Paraffin...	1	—
Liquorice Powder	1	—
Milk	25	—
Margarine	1	—
Meat (Paste)	2	—
Olive Oil	1	—
Parsley (Dried)...	1	—
Pepper	1	—
Seidlitz Powder	1	—
Whisky	2	—
Zinc Ointment	1	—
Totals - - -	61	Nil

Prevalence of, and Control over, Infectious Diseases.

The incidence of Infectious Diseases in the years 1921-38 is shown in the following table which gives the case rate per 1,000 of the population.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas	Pneumonia
1921	0.00	1.57	2.90	0.12	0.12	0.00
1922	0.00	1.99	0.79	0.12	0.42	0.00
1923	0.00	4.28	0.66	0.18	0.36	0.00
1924	0.00	1.57	0.06	0.29	0.17	0.00
1925	0.00	1.27	0.17	0.11	0.23	0.00
1926	0.00	0.55	0.22*	0.05	0.00	0.00
1927	0.00	1.07	0.39*	0.05	0.05	0.00
1928	0.00	1.57*	0.39*	0.05	0.39	0.00
1929	0.00	1.7	0.4*	0.00	0.11	0.00
1930	0.00	1.41	1.53	0.12	0.18	0.00
1931	0.00	0.49	0.12	0.06	0.24	0.00
1932	0.00	0.71	0.83*	0.06	0.12	0.00
1933	0.00	1.3*	0.5*	0.00	0.15	0.00
1934	0.00	2.71*	0.64	0.00	0.29	0.00
1935	0.00	1.9*	0.76	0.00	2.8	0.00
1936	0.00	2.86*	2.17*	0.00	0.41	0.00
1937	0.00	3.1*	1.01*	0.08	0.72	0.79
1938	0.00	2.3*	1.52*	0.04	0.30	0.95

*—The Convalescent Home Cases are excluded from this calculation.

Case Rate per 1,000 of population in England and Wales.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Pneumonia
1921	0.00	3.64	1.76	0.10	0.35	0.00
1922	0.00	2.85	1.37	0.06	0.35	0.00
1923	0.00	2.24	1.05	0.08	0.32	0.00
1924	0.00	2.16	1.07	1.11	0.33	0.00
1925	0.14	2.36	1.23	0.07	0.39	0.00
1926	0.26	2.10	1.31	0.07	0.38	0.00
1927	0.38	2.16	1.33	0.09	0.38	0.00
1928	0.32	2.61	1.55	0.09	0.42	0.00
1929	0.28	3.05	1.59	0.07	0.45	0.00

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Pneumonia
1930	0.29	2.76	1.84	0.07	0.45	0.00
1931	0.14	2.05	1.27	0.06	0.38	0.00
1932	0.05	2.12	1.08	0.06	0.36	0.00
1933	0.02	3.21	1.18	0.04	0.45	0.00
1934	0.04	3.76	1.70	0.03	0·51	0.00
1935	0.00	2.96	1.60	0.04	0.42	0.00
1936	0.00	2.53	1.39	0.06	0.40	0.00
1937	0.00	2.33	1.49	0.05	0.37	1.36
1938	0.00	2.14	1.58	0.03	0.40	1.10

The Registrar-General states that " the rates for puerperal fever and for puerperal pyrexia are better expressed in relation to the number of births registered rather than to the population." When calculated on this basis the rate for England and Wales is 14.42 per 1,000 total births (*i.e.*, live and still-births), registered during the year. On the same basis the Hoylake rates would be puerperal fever 0.00, puerperal pyrexia 10.86

Notifiable Diseases (other than Tuberculosis) during the year 1938.

Disease.	Total Cases Notified.	Total Cases Admitted to Hospital.	Total Deaths.
Smallpox	—	—	—
Scarlet Fever	49	34	—
Diphtheria	65	65+ (1 neg.)	2
Enteric Fever	1	—	—
Puerperal Fever	—	—	—
Puerperal Pyrexia	3	—	—
Pneumonia	22	7	17
Erysipelas	7	2	—
Cerebro-Spinal Fever ...	—	—	—
Acute Poliomyelitis ...	—	—	—
Acute Polio-encephalitis ...	—	—	—
Encephalitis Lethargica ...	—	—	1
Dysentery	2	—	—
Malaria	—	—	—
Chickenpox	—	—	—
Totals -	149	108 + (1 neg.)	20

Diphtheria at the West Kirby Children's Convalescent Home accounted for 20 of the cases and does not seem to have been associated with the existence of any causal conditions in the Home, but to have been dependent upon carriers. 7 cases of Scarlet Fever were notified from the Home.

Table of Age-Groups, showing Total Cases and Deaths, 1938.

Disease		Total Cases	Total		0-1		1-2		2-3		3-4		4-5		5-10		10-15		15-20		20-35		35-45		45-65		65 up	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Cases ...		149	76	73	...	...	1	3	1	1	3	3	6	2	33	21	8	13	5	12	7	8	3	5	6	2	3	3
Total Deaths ...		20	12	8	1	...	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	4	1	4	5
Smallpox	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	Cases	49	24	25	...	...	...	2	1	...	...	2	4	1	10	4	2	5	4	8	2	2	1	1	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	Cases	65	32	33	...	...	...	...	...	...	2	...	2	1	21	17	5	8	1	4	1	1	...	1	...	...	...	1
	Deaths	2	1	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	Cases	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	Cases	22	16	6	...	...	1	1	...	1	1	1	...	...	2	...	1	...	...	...	3	...	1	2	5	...	2	1
	Deaths	17	10	7	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	1	3	5
Erysipelas	Cases	7	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	1	1	1
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Polio-encephalitis	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Puerperal Pyrexia	Cases	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	Cases	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Table Showing Distribution of Total Cases of Notifiable Diseases, 1938.

	Wards.									
Disease.	North	Central	Park	South	Caldy and Frankby	Grange	Greasby	Children's Con. Home	Ell'n Gonner Home	Total
Scarlet Fever	7	3	9	5	2	3	5	14	1	49
Diphtheria	15	7	6	2	—	5	—	29	1	65
Pneumonia	7	7	3	1	—	1	3	—	—	22
Erysipelas	3	1	—	—	—	1	2	—	—	7
Enteric Fever	—	—	—	—	1	—	—	—	—	1
Encephalitis lethargica.,.	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia ...	2	—	1	—	—	—	—	—	—	3
Dysentery	1	—	1	—	—	—	—	—	—	2
Totals ...	35	18	20	8	3	10	10	43	2	149

Tuberculosis.

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Years								
0 - 1	—	—	—	—	—	—	—	—
1 - 5	—	—	—	—	—	—	—	—
5 - 10	—	—	—	1	—	—	—	—
10 - 15	—	1	—	—	—	—	—	—
15 - 20	—	—	—	—	—	—	—	—
20 - 25	—	2	—	—	—	—	—	—
25 - 35	1	3	—	—	1	2	—	—
35 - 45	—	2	—	—	1	3	—	—
45 - 55	1	—	—	—	2	1	—	—
55 - 65	—	—	—	—	3	—	—	—
65 and upwards ...	—	—	—	—	—	—	—	—
Totals ...	2	8	0	1	7	6	0	0

1938.

OPHTHALMIA NEONATORUM.	Cases.			Vision unimpaired.	Vision impaired.	Total Blindness.	Deaths.
	Notified.	Treated.					
		At Home.	In Hospital.				
	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Neston Urban District

Neston was constituted an Urban District in 1894 and was extended on 1st April, 1933, by the inclusion of the Parish of Ness and parts of the parishes of Burton, Puddington, Eastham, Willaston, Raby and Thornton Hough.

Statistics and Social Conditions of the Area.

Area (Acres)	8,495
Registrar-General's Estimate of Resident Population (1938)	8,574
Number of inhabited houses (1938)	2,391
Rateable value	£67,916
Sum represented by a penny rate	£263

The Natural Increase (excess of births over deaths) of the population in the years 1922-38 is shown in the following table :—

Year	Population	Natural Increase per 1,000 Population
1922	5,193	12.4
1923	5,232	10.0
1924	5,397	9.8
1925	5,407	6.1
1926	5,448	5.9
1927	5,586	5.3
1928	5,485	3.8
1929	5,742	8.9
1930	5,753	5.9
1931	5,771	6.9
1932	5,761	5.0
1933	7,650	2.2
1934	8,280	5.1
1935	8,460	5.2
1936	8,450	3.55
1937	8,527	5.8
1938	8,574	3.4

Natural Increase of Population (*i.e.*, excess of births over deaths) 1922-1937 (England and Wales).

Year		Per 1,000 population	Year		Per 1,000 population
1922	...	7.6	1930	...	4.9
1923	...	8.1	1931	...	3.5
1924	...	6.6	1932	...	3.3
1925	...	6.1	1933	...	2.1
1926	...	6.2	1934	...	3.0
1927	...	4.3	1935	...	2.9
1928	...	5.0	1936	...	2.7
1929	...	2.9	1937	...	2.5

Extracts from Vital Statistics of the Year 1938.

These statistics are calculated on the population of 8,574 supplied by the Registrar-General.

Live Births.

		Males.	Females.	Total.
Legitimate	...	72	68	140
Illegitimate	...	2	2	4
		74	70	144

Birth Rate 16.79 per 1,000 of the Population.

Live Births Rate per 1,000 estimated resident population (1938) 148 smaller towns (population 25,000-50,000 Census 1931) 15.4.

Birth Rate—England and Wales 15.1

Still Births.

		Males.	Females.	Total.
Legitimate	...	3	2	5
Illegitimate	...	0	1	1
		3	3	6

Still Birth Rate 40.0 per 1,000 total (live and still) Births or .69 per 1,000 of the population.

Table of number of Births and Birth Rates, 1922-1937.

Year.	Number.	Birth Rate.	Year.	Number.	Birth Rate.
1922	113	21.7	1930	92	16.0
1923	105	20.0	1931	98	17.0
1924	113	20.9	1932	97	16.8
1925	106	19.6	1933	114	14.9
1926	90	16.5	1934	121	14.6
1927	92	16.4	1935	129	15.2
1928	90	16.4	1936	120	14.2
1929	109	19.0	1937	142	16.6

The average number of births per annum in the years 1922-1937 was 108.

Birth Rate England and Wales (1937) 14.8.

Birth Rate in the Administrative County of Chester (1937) 14.2.

Deaths.

Total, 114 ... Males, 58 ... Females, 56
Death Rate 13.29 Corrected Death Rate 13.68.

The death rate per 1,000 estimated resident population in the 148 smaller towns (25,000-50,000 Census 1931) was 11.0 (1938). England and Wales 11.6.

Table of Number of Deaths and Death Rates, 1922-1937.

Year	Number	Death Rate	Year	Number	Death Rate
1922	49	9.4	1930	58	10.1
1923	53	10.1	1931	58	10.1
1924	60	11.1	1932	68	11.8
1925	73	13.5	1933	97	12.7
1926	58	10.6	1934	78	9.4
1927	62	11.0	1935	85	10.04
1928	69	12.6	1936	90	10.7
1929	58	10.1	1937	92	10.8

The average number of deaths per annum in the years 1922-1937 was 69.

Ratio of local adjusted death rate to National Rate was 0.90 (1937).

Death Rate in the Administrative County of Chester 12.2, bearing a ratio of 0.99 to the National Rate.

Percentage of deaths in Public Institutions 33.0.

Deaths from Puerperal causes :—

	Deaths.	Rate per 1,000 total (live and still) Births.	Rate per 1,000 live Births.
Puerperal sepsis	0	0.00	0.00
Other puerperal causes ...	0	0.00	0.00
Total	0	0.00	0.00
The figures for England and Wales :—			
Puerperal sepsis		0.86	0.89
Other puerperal causes		2.11	2.19
Total		2.97	3.08

Death Rate of Infants under 1 year of age :—	Number	Rate
All infants per 1,000 live births	4	27.
Legitimate infants per 1,000 legitimate live births...	4	28.
Illegitimate infants per 1,000 illegitimate live births	0	0.

Table of Infantile Mortality, 1921-1937.

Year.	Rate per 1,000 Births.	Year.	Rate per 1,000 Births.
1921 ...	56.9	1929 ...	28.0
1922 ...	53.0	1930 ...	43.5
1923 ...	47.6	1931 ...	31.0
1924 ...	79.0	1932 ...	82.0
1925 ...	47.1	1933 ...	88.0
1926 ...	88.8	1934 ...	8.0
1927 ...	112.0	1935 ...	46.4
1928 ...	33.0	1936 ...	50.0
		1937 ...	42.0

Registrar-General's Table (1938) :—	Deaths under 1 year per 1,000 registered live births
England and Wales	53
126 County Boroughs and great towns including London	57
148 smaller towns (25,000-50,000 Census 1931)	51
London (Administrative County)	57
Deaths from Measles (all ages)	0
Deaths from Whooping Cough (all ages)	0
Deaths from Diarrhœa (under 2 years of age)	0
Deaths from Cancer (all ages)	17

There were 2 deaths from Measles in the preceding 5 years, 2 from Whooping Cough and 1 from Diarrhœa (under 2 years of age).

Causes of Death.

All Causes.	Males	Females	Total
1. Typhoid and Paratyphoid Fevers	—	—	—
2. Measles	—	—	—
3. Scarlet Fever	—	—	—
4. Whooping Cough	—	—	—
5. Diphtheria	—	—	—
6. Influenza	—	—	—
7. Encephalitis Lethargica	—	—	—
8. Cerebro-Spinal Fever	—	—	—
9. Tuberculosis of Respiratory System	2	1	3
10. Other Tuberculous Diseases	—	—	—
11. Syphilis	1	—	1
12. General Paralysis of the Insane, Tabes Dorsalis	—	—	—
13. Cancer, Malignant Disease	11	6	17
14. Diabetes	2	4	6
15. Cerebral Hæmorrhage, &c.	—	—	—
16. Heart Disease	17	19	36
17. Aneurysm	—	—	—
18. Other Circulatory Diseases	6	8	14
19. Bronchitis	—	—	—
20. Pneumonia (all forms)	2	5	7
21. Other Respiratory Diseases	1	—	1
22. Peptic Ulcer	1	—	1
23. Diarrhœa, &c. (under 2 years)	1	1	2
24. Appendicitis	1	1	2
25. Cirrhosis of Liver	—	—	—
26. Other Diseases of Liver, &c.	—	—	—
27. Other Digestive Diseases	1	—	1
28. Acute and Chronic Nephritis	—	1	1
29. Puerperal Sepsis	—	—	—
30. Other Puerperal Causes	—	—	—
31. Congenital Debility, Premature Birth, Malformations, &c.	2	1	3
32. Senility	—	—	—
33. Suicide	1	—	1
34. Other Violence	3	1	4
35. Other Defined Diseases	6	8	14
36. Causes Ill-defined or Unknown	—	—	—
Totals - -	58	56	114
Special Causes (*included in No.* 35 *above*)			
Smallpox	—	—	—
Poliomyelitis	—	—	—
Polio-encephalitis	—	—	—

General Provision of Health Services in the Area.

See under North-West Cheshire p. 17.

List of Adopted Acts, Bye-Laws, and Regulations.

ADOPTED ACTS.

Infectious Disease (Prevention Act)	1890
Public Health Acts Amendment Act 1890 (Parts 3, 4)	1892
Public Health Acts Amendment Act	1907
Small Dwellings Acquisition Act	1900
Public Health Act 1925, Parts 2, 3, 4, 5, except ss., 21, 22, 44	1928

BYE-LAWS.

With respect to—

New Streets and Buildings—New Bye-Laws	1930
Offensive Trades	1929
Drainage of Buildings	1933
Nuisances	1938
Slaughterhouses	1938

Bye-law made by the Urban District Council of Neston with respect to new streets and buildings in the Urban District of Neston.

The bye-laws with respect to buildings and certain matters in connexion therewith which were made on the seventeenth day of November, 1924, by the Rural District Council of Wirral and were confirmed on the twelfth day of January, 1925, by the Minister of Health, so far as they are in force in the Urban District of Neston, are hereby repealed and the bye-laws described in the schedule hereto shall extend and apply to the whole of the Urban District of Neston.

Schedule.

Description of Byelaws	Date of making	By whom made	Date of Confirmation	By whom confirmed
New Streets and Buildings	1st December, 1930	Urban District Council of Neston and Parkgate	18th February, 1931	Minister of Health
Drainage of Buildings	3rd August, 1933	Urban District Council of Neston	29th September, 1933	

GIVEN under the Common Seal of the District Council for the District of Neston in the County of Chester at a Meeting held on the Fifth day of October, 1936. (L.S.)

WM. LEES EVANS, Chairman.
F. R. POOLE,
Clerk of the Council.

THE foregoing Byelaw is hereby confirmed by the Minister of Health this first day of December, 1936, *and shall come into operation on the first day of January.* 1937, (L.S.)

W. A. ROSS,
Assistant Secretary Minister of Health.

Sanitary Circumstances of the Area.

WATER.—Central area Council Supply (unsoftened) added areas West Cheshire (softened).

Certificate of Analysis of Supply provided by Neston Council.

Mark and denomination of the sample. District Water Supply from Tap in Pumping House in parts per 100,000 :—

Total solid matter in solution	32.64
Oxygen required to oxidise (in 15 minutes)	none
,, ,, ,, ,, (in 3 hours)	none
Ammonia	none
Ammonia from organic matter by distillation with alkaline permanganate	none
Nitrogen as Nitrates	0.86
Nitrogen as Nitrites	none
Combined Chlorine	2.75
Total Hardness	21.0

The sample was clear, colourless and odourless. It contained only a minute trace of suspended matter which consisted of a few particles of siliceous matter.

Reaction to Litmus, neutral. PH. Value, 7.1.

The water is very pure and of medium hardness it is well suited for drinking and all domestic purposes.

Date.	Description.	Bacteria per c.c. at37° C.	Bacteria per c.c. at 22° C.	B. Coli.
1.2.38	Tap in Town Hall	0	4	Absent in 100 cc.

Certificate of Analysis of Supply provided by West Cheshire Water Board (Hooton Well).

	Chemical Results in parts per 100,000
Appearance	Clear and bright
Colour	Normal. Odour nil
Reaction pH	Neutral 7.4. Free Carbonic Acid—1.3
Electricity Conductivity at 20 degrees C.	690.
Total Solids, 180 degrees C.	46.0
Chlorine in Chlorides	8.8
Nitrogen in Nitrates	Nil Nitrites absent
Hardness : Permanent	0.0 Grains per gallon
Temporary	8.0 ,, ,, ,,
Total	8.0 ,, ,, ,,
Metals	Iron 0.003
Free Ammonia	0.0000 Ammoniacal Nitrogen—
Albuminoid Ammonia	0.0000 Albuminoid Nitrogen—
Oxygen absorbed in 4 hrs. at 80 deg. F. ...	0.0c
	Bacteriological Results.
No. of Bacteria per cc. or Ml—	
On Agar in 3 days at 20 degrees C. ...	3
On Agar in 1 day at 37 degrees C.... ...	0
On Agar in 2 days at 37 degrees C. ...	0
The Bacillus Coli	Absent in 100 cc
Bacillus Welchii	Absent in 100 cc
(B. Enteritidis Sporogenes)	

Report.—This is a clear and bright water, odourless and of normal colour. It is neutral in re-action, of moderate Hardness, contains no excess of salinity, is free from metals, apart from a negligible trace of iron, and is of the highest standard of organic and bacterial purity. We are of the opinion, therefore, that the water is pure and wholesome and suitable for the purposes of public supply.

These analyses are satisfactory but certain samples analysed during the year indicated pollution of the supply. On my advice the water was chlorinated and active steps were taken to determine the sources of pollution. One obvious source was speedily eradicated but as numerous houses draining to cesspools are now erected on the collecting area my advice was to continue chlorination.

Rivers and Streams.—A stream polluted by the effluent of faulty disposal works and other matters, is receiving active attention. The efforts to improve the effluent have not been successful up to the present time.

Drainage and Sewerage.—During the last five years, considerable modifications have been made to ensure an innocuous effluent and to minimise the amount of sewage passed into the Dee. The old disposal works have been modernised and enlarged, humus tanks and sludge lagoons are now supplied.

Parkgate Sewerage which was the subject of a Local Government Board Enquiry in 1911 has now been brought to the disposal works.

Ness has its own sewerage works consisting of settling tanks, rotatory filter and humus tanks.

Burton has a gravitation system to receiving tanks and filter for the old part of the village.

Willaston—part goes to an out-of-date works which are being re-conditioned and part to Eastham Rake works. The failure of the reconditioned works is indicated in the Analysis under Rivers and Streams.

Scavenging.—The Council has its own scavenging staff in Neston and the work is done systematically so that complaints are not now received. Disposal is by controlled tipping on an area purchased by the Council and at a distance of about a quarter of a mile from any dwellings. Galvanised iron bins are the rule at the new houses.

In the added areas, scavenging is by contract.

Open-air Swimming Baths at Parkgate.—Bacteria per cc. at 22 deg. C., 6,400 ; at 37 deg. C., 32,000.

B. Coli absent in 100 cc.

Schools.—All the schools have the public water supply and satisfactory water closets, except Burton, which still has privies.

Sanitary Inspection of the Area.

The following table is supplied by the Sanitary Inspector.

	A.		B.		C.			
	Nature of Inspections made.		Notices Served.		Result of Service of Notices.		Prosecutions.	
		Number	Statutory	Informal	Complied with	Remaining in hand	Instituted	Pending
1	Dwelling houses--General Inspections	293	—	—	—	—	—	—
2	,, Revisits	218	13	57	58	12	—	—
3	Tents, Caravans and Sheds ...	32	—	4	4	—	—	—
4	Courts, Yards and Passages ...	18	—	4	4	—	—	—
5	Offensive Accumulations	10	—	7	5	2	—	—
6	Ashpits and Privies	44	—	10	4	6	—	—
7	Dustbins	22	—	14	14	—	—	—
8	Cesspools	28	—	14	12	2	—	—
9	Drains blocked and W.C.'s	51	1	26	26	1	—	—
0	Smoke Observations...	3	—	2	1	1	—	—
1	Ditches, Watercourses, etc. ...	42	—	15	10	5	—	—
2	Keeping of Animals	11	—	4	4	—	—	—
3	Rag Gatherers	3	1	—	1	—	1*	—
4	Slaughterhouses	226	—	3	3	—	—	—
5	Butchers' Shops	20	—	4	4	—	—	—
6	Fried Fish Shops	12	—	2	2	—	—	—
7	Other Food Premises	30	—	7	7	—	—	—
8	Cowsheds and Dairies	120	—	12	10	2	—	—
9	Factories...	52	—	7	6	1	—	—
0	Bakehouses	18	—	3	3	—	—	—
	Infectious Diseases—							
1	Enquiries and Revisits ...	112	—	—	—	—	—	—
2	Disinfections—	—	—	—	—	—	—	—
3	Disinfestation	10	—	3	3	—	—	—
4	Schools Inspected	5	—	—	—	—	—	—
5	Dangerous Structures	—		—	—	—	—	—
6	Samples of Milk	14	—	5	5	—	—	—
7	Samples of Water taken for Analysis							
	(a) Water	9	—	—	—	—	—	—
8	Public Conveniences	2	—	—	—	—	—	—
9	Places of Entertainment	4	—	—	—	—	—	—
0	Rat Infestations	4	—	3	3	—	—	—
1	Shops Act Inspections	22	—	5	5	—	—	—
2	Other Nuisances	8	—	7	5	2	—	—
	Totals - -	1443	15	218	199	34	1	—

* Fined 7/6

1. **Inspections** for purposes of provisions as to health. Including inspections made by Sanitary Inspectors.

Premises (1)	Number of Inspections (2)	Written Notices. (3)	Occupiers Prosecuted (4)
Factories with mechanical power	21	2	—
Factories without mechanical power	25	4	—
***Other Premises** under the Act (including works of building and Engineering construction but not including outworkers' premises ...	6	1	—
* Electrical Stations should be reckoned as factories.			
Total	52	7	—

2. Defects found.

Particulars. (1)	Number of Defects. Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	N'ber of defects in respect of which Prosecutions were instituted. (5)
Want of cleanliness (S. 1)	1	1	—	—
Overcrowding (S. 2)	—	—	—	—
Unreasonable temperature (S. 3)	—	—	—	—
Inadequate ventilation (S. 4)	—	—	—	—
Ineffective drainage of floors (S. 6).	1	1	—	—
Sanitary conveniences S. 7 insufficient	3	3	—	—
Sanitary conveniences S. 7 unsuitable or defective ...	1	1	—	—
Sanitary conveniences S. 7 not separate for sexes —	—	—	—	—
Other offences ... ... (Not including offences relating to Home Work of offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921), and re-enacted in the third Schedule to the Factories Act, 1937.	1	1	—	—
Total	7	7	—	—

*—Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

Housing.

1. Inspection of Dwelling Houses during the Year :—

(1) (*a*) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	293
(*b*) Number of Inspections made for the purpose	511
(2) (*a*) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	132
(*b*) Number of Inspections made for the purpose	246
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	17
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	57

2. Remedy of Defects during the Year without Service of Formal Notice :—

Number of defective houses rendered fit in consequence of informal action by the Local Authority or their Officers	50

3. Action under Statutory Powers during the Year: —

A. Proceedings under sections 9, 10 and 16 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	Nil
(2) Number of dwelling houses which were rendered fit after service of formal notices :—	
(*a*) By owners	Nil
(*b*) By Local Authority in default of owners ...	Nil

B. Proceedings under Public Health Acts.

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	Nil
(2) Number of dwelling houses in which defects were remedied after service of formal notices :—	
(*a*) By owners	Nil
(*b*) By Local Authority in default of owners ...	Nil

C. Proceedings under sections 11 and 13 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which Demolition Orders were made	11
(2) Number of dwelling houses demolished in pursuance of Demolition Orders	6

D. Proceedings under section 12 of the Housing Act, 1936.

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil

4. **Housing Act, 1936 (Overcrowding.—**

A. (1) Number of dwelling houses overcrowded at the end of the year	12
(2) Number of families dwelling therein	12
(3) Number of persons dwelling therein	97

B.		Number of new cases of overcrowding reported during the year	Nil
C.	(1)	Number of cases of overcrowding relieved during the year	10
	(2)	Number of persons concerned in such cases	68
D.		Particulars of any case in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil
E.		Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report :—	
	(1)	Number of Council Houses overcrowded	3
	(2)	Number of Council House cases relieved	4
	(3)	Number of cases of overcrowding relieved by Slum Clearance	Nil

Eradication of Bed Bugs.

1. Number of Houses found to be infested.

(*a*)	Council Houses	2
(*b*)	Other Houses	1

2. Number of houses disinfested.

(*a*)	Council Houses	2
(*b*)	Other Houses	1

3. The methods employed for freeing infested houses from bed bugs :—

In the above cases disinfestation was carried out by a firm of specialist fumigators using Hydrogen Cyanide.

SHOPS ACT, 1934.—22 shops were inspected and notices to provide sufficient heating apparatus were served in five instances.

CAMPING SITES.

1.	The number of sites in the area which were used for camping purposes during 1938	3
2.	The number of camping sites in respect of which licenses have been issued by the Local Authority under S. 269 Public Health Act, 1936	Nil
3.	The estimated maximum number of campers resident in the area at one time during the summer season 1938	45

SMOKE ABATEMENT.—During the year complaint was made of the excessive emission of smoke from a laundry chimney. Informal action resulted in the raising of the chimney, and there is not now cause for complaint.

Inspection and Supervision of Food.

(*a*) MILK SUPPLY.—The Registers show 38 Cowkeepers and 38 Retail Purveyors (7 of whom are from outside districts).

Special Designations.—The following licences were issued during the year :—

To Bottle and Sell " Tuberculin Tested " Milk ...	1
To sell " Tuberculin Tested " Certified Milk ...	3
Supplementary Licences to sell " Accredited " ...	2
Supplementary Licences to sell " Pasteurised "...	2
Total -	8

There are 22 " Accredited " producers.

(*b*) MEAT.—There is one Registered Slaughter house in the Urban District, and during the year 220 visits were paid for the purpose of Meat Inspection, in accordance with the Public Health (Meat Regulations) 1924.

Carcases Inspected and condemned.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number Killed	62	261	372	1592	405
Number Inspected	62	261	372	1592	405
All diseases except tuberculosis :					
Whole carcases condemned...	—	2	1	2	—
Carcases of which some part or organ was condemned ...	4	20	1	143	5
Percentage of the number inspected affected with disease other than Tuberculosis ...	6.4	8.4	·5	9.1	1.2
Tuberculosis only :—					
Whole carcases condemned ...	1	7	—	—	1
Carcases of which some part or organ was condemned ...	11	77	2	—	68
Percentage of the number inspected affected with Tuberculosis	19.3	32.1	·5	—	17

Details of unsound meat dealt with :—

	lbs.	Total lbs.
Cattle (including cows)		
10 carcases	5796	
7 forequarters	942	
40 livers	480	
34 heads	920	
64 lungs	640	8778
Calves		
1 carcase	50	
2 plucks	14	
1 hindquarter	20	84
Sheep and lambs		
2 carcases	70	
2 shoulders	10	
3 legs	16	
143 plucks	572	668
Pigs		
1 carcase	140	
45 heads	540	
28 plucks	224	904
		10,434

The amount disposed of was 4 tons 13 cwts. 18 lbs., of which $3\frac{1}{2}$ tons were tuberculous.

(*c*) OTHER PREMISES WHERE FOOD IS PRODUCED OR SOLD.—There are 10 Butchers, 24 Provision Dealers, 11 Fruit and Vegetable Dealers, 7 Fresh Fish Dealers, 9 Confectioners, 5 Bakehouses, and 4 Fish Frying Premises, all of which have been subject to periodical inspections. There are several Greengrocers who only sell their goods from carts. One Meat Hawker with a properly constructed vehicle visits the District.

Sale of Food and Drugs Act.

Particulars of Samples forwarded to the Public Analyst from the district during the year ending 31st December, 1938.

Name of Sample.	Number Analysed.	Number of Samples Certified as Adulterated or not up to Standard.
Almonds, Ground	1	—
Butter	1	—
Castor Oil	1	—
Cheese...	1	—
Coffee...	1	—
Cream, Fresh...	1	—
Fish Paste	1	—
Honey	1	—
Lard	1	—
Liquorice Powder	1	—
Milk	14	—
Olive Oil	1	—
Zinc Ointment	1	—
Total - - -	26	Nil

Prevalence of, and Control over, Infectious Diseases.

The prevalence of infectious diseases during the period 1921-38 is shown in the following table which gives the attack rate per 1,000 of the population.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Pneumonia.
1921	0.00	1.55	1.75	0.19	0.00	0.00
1922	0.00	1.54	0.77	0.00	0.00	0.00
1923	0.00	1.72	2.68	0.00	0.00	0.00
1924	0.00	0.55	2.01	0.00	0.00	0.00
1925	0.00	0.55	0.00	0.00	0.00	0.00
1926	0.00	1.46	0.00	0.00	0.17	0.00
1927	0.00	0.895	0.18	0.00	0.00	0.00
1928	0.00	0.72	0.54	0.00	0.00	0.00
1929	0.00	3.3	0.34	0.00	0.00	0.00
1930	0.00	2.57	0.34	0.34	0.34	0.00
1931	0.00	0.17	0.00	0.00	0.00	0.00
1932	0.00	0.86	0.00	0.00	0.17	0.00
1933	0.00	1.17	2.74	0.00	0.13	0.00
1934	0.00	0.96	3.01	0.12	0.10	0.00
1935	0.00	0.94	0.59	0.00	0.00	0.00
1936	0.00	1.63	0.82	0.11	0.23	0.00
1937	0.00	1.1	1.2	0.00	0.35	1.4
1938	0.00	4.66	4.66	0.00	0.23	1.86

The corresponding rates for England and Wales are as follows :

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Pneumonia.
1921	0.00	3.64	1.76	0.10	0.35	0.00
1922	0.00	2.85	1.37	0.06	0.35	0.00
1923	0.00	2.24	1.05	0.08	0.32	0.00
1924	0.00	2.16	1.07	0.11	0.33	0.00
1925	0.14	2.36	1.23	0.07	0.39	0.00
1926	0.26	2.10	1.31	0.07	0.38	0.00
1927	0.38	2.16	1.33	0.09	0.38	0.00
1928	0.32	2.61	1.55	0.09	0.42	0.00
1929	0.28	3.05	1.59	0.07	0.45	0.00
1930	0.29	2.76	1.84	0.35	0.45	0.00

Year.	Small Pox.	Scarlet Fever.	Diphtheia.	Enteric Fever.	Erysipelas.	Pneumonia.
1931	0.14	2.05	1.27	0.06	0.38	0.00
1932	0.05	2.12	1.08	0.06	0.36	0.00
1933	0.02	3.21	1.18	0.04	0.45	0.00
1934	0 04	3.76	1.70	0.03	0.51	0.00
1935	0.00	2.96	1.60	0.04	0.42	0.00
1936	0.00	2.53	1.39	0.06	0.40	0.00
1937	0.00	2.33	1.49	0.05	0.37	1.36
1938	0.00	2.41	1.58	0.03	0.40	1.10

Puerperal Pyrexia rate is now expressed in the terms of total births (live and still).

England and Wales	14.42
Neston Rate was	0.00

Notifiable Diseases during the Year 1938.

Disease.	Total Cases Notified.	Total Cases Admitted to Hospital.	Total Deaths.
Smallpox	—	—	—
Scarlet Fever	40	8	—
Diphtheria	40	11 + 3 neg.	—
Puerperal Fever	—	—	—
Puerperal Pyrexia	—	—	—
Pneumonia	16	12	7
Erysipelas	2	2	—
Cerebro-Spinal Fever ...	—	—	—
Acute Poliomyelitis ...	—	—	—
Acute Polio-encephalitis ...	—	—	—
Encephalitis Lethargica ...	—	—	—
Dysentery	—	—	—
Malaria	—	—	—
Chickenpox	—	—	—
Totals -	98	86	7

Table of Age Groups Showing Total Cases and Deaths, 1938.

Disease		Total Cases	Total.		0-1		1-2		2-3		3-4		4-5		5-10		10-15		15-20		20-35		35-45		45-65		65 up	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Cases ...		98	53	45	...	...	3	1	3	3	5	3	3	3	19	19	7	4	2	2	7	6	3	1	...	2	1	1
Total Deaths ...		7	2	5	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	1	1
Scarlet Fever ...	Cases	40	20	20	...	...	1	...	2	3	3	1	1	1	11	12	1	...	...	1	1	2	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	Cases	40	20	20	...	...	2	1	...	...	2	2	1	2	7	7	5	4	1	1	2	1	...	1	...	1	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ...	Cases	16	12	4	...	...	...	...	1	...	...	...	1	...	1	...	1	...	1	...	4	2	3	...	...	1	...	1
	Deaths	7	2	5	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	1	1
Erysipelas ...	Cases	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lethargica	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Table Showing Distribution of Total Cases of Notifiable Diseases 1938.

Disease.	District.						
	Burton	Little Neston	Parkgate	Ness	Neston	Willaston	Total Cases
Scarlet Fever	—	23	2	1	6	8	40
Diphtheria	—	17	1	2	17	3	40
Enteric Fever	—	—	—	—	—	—	—
Pneumonia	—	7	2	1	4	2	16
Erysipelas	—	—	1	—	—	1	2
Ophthalmia Neonatorum	—	1	—	—	—	—	1
Totals	—	48	6	4	27	14	99

Tuberculosis.

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
Years								
0—1	—	—	—	—	—	—	—	—
1—5	1	—	—	1	—	—	—	—
5—10	2	—	—	—	—	—	—	—
10—15	2	—	—	—	—	—	—	—
15—20	—	1	—	—	—	—	—	—
20—25	—	1	—	—	—	1	—	—
25—35	—	—	—	—	1	—	—	—
35—45	1	—	—	—	—	—	—	—
45—55	—	—	—	—	—	—	—	—
55—65	—	—	—	—	—	—	—	—
65 and upwards ...	—	—	—	—	—	—	—	—
Totals ...	6	2	—	1	1	1	—	—

1938.

	Cases.			Vision unimpaired.	Vision impaired.	Total Blindness.	Deaths.
	Notified	Treated.					
		At Home.	In Hospital.				
OPHTHALMIA NEONATORUM	1	1	Nil.	Nil.	Nil.	Nil.	Nil

Wirral Urban District

This district was constituted under the Chester Review Order, 1st April, 1933. It includes the Parishes of Heswall, Barnston, Gayton, Irby, Pensby, Thurstaston and parts of Brimstage, Thornton Hough and Arrowe.

Statistics and Social Conditions of the Area

Area (acres)	5,639
Registrar-General's Estimate of Resident Population (1938)	12,660
Number of inhabited houses (1938)	4,370
Rateable value...	£134,307
Sum represented by a penny rate	£476

The Natural Increase that is the excess of births over deaths per 1,000, is shown in the following table—

Year.	Population,	Natural Increase per 1,000 Population.
1934	10,570	5·
1935	10,920	2.19
1936	11,320	4·9
1937	12,110	5·7
1938	12,660	6.1

Natural Increase of Population (i.e., excess of Births over Deaths) 1937 England and Wales, 2.5 per 1,000 population.

Extracts from Vital Statistics of the Year 1938.

These statistics are calculated on the population of 12,660 supplied by the Registrar-General.

Live Births.

	Males.	Females.	Total.
Legitimate ...	111	104	215
Illegitimate ...	4	3	7
	115	107	222

Birth Rate 17.5 per 1,000 of the population.

Live Birth Rate per 1,000 estimated resident population (1938) in 148 smaller towns (population 25,000-50,000 Census (1931) 15.4.

Birth Rate England and Wales 15.1

Still Births.

	Males.	Females.	Total.
Legitimate ...	4	2	6
Illegitimate ...	0	0	0
	4	2	6

Still-Birth Rate 26.3 per 1,000 total live and still-births or 0.47 per 1,000 of the population.

Number of Births and Birth Rate per 1,000 population.

Year.	Number.	Birth Rate.
1934	175	16.6
1935	176	16.11
1936	195	17.2
1937	214	17.7

Birth Rate in the Administrative County of Chester (1937) 14.2.

Deaths.

Total, 144 ... Males, 69 ... Females, 75

Death Rate 11.37. Corrected Death Rate 11.48.

The death rate per 1,000 estimated resident population in the 148 smaller towns (25,000-50,000 Census 1931) was 11.6 (1938).

Number of Deaths and Death Rate per 1,000 population :—

Year.	Number.	Death Rate.
1934	122	11.5
1935	152	14.04
1936	139	12.3
1937	144	11.9

Ratio of local adjusted rate to National Rate was 1.03 (1936).

Death Rate in the Administrative County of Chester was 12.2 bearing a ratio of 0.99 to the National Rate (1937).

Percentage of total deaths occurring in Public Institutions 22.9.

Deaths from Puerperal causes :—

	Deaths	Rate per 1,000 total (Live and Still) Births	Rate per 1,000 Live Births
Puerperal sepsis ...	0	0.00	0.00
Other puerperal causes	1	4.38	4.50
Total	1	4.38	4.50

The figures for England and Wales :—

Puerperal sepsis	0.86	0.89
Other puerperal causes	2.11	2.19
Total	2.97	3.08

Death Rate of Infants under 1 year of age :—

	No.	Rate
All infants per 1,000 live births	8	36.03
Legitimate infants per 1,000 legitimate live births...	8	37.20
Illegitimate infants per 1,000 illegitimate live births	0	0.00

Infantile Mortality—

Year	Rate per 1,000 Live Births
1934	17
1935	68
1936	46
1037	28

Registrar-General's table 1938—

	Deaths under 1 Year per 1,000 registered live births
England and Wales	53
126 county boroughs and great towns including London ...	57
148 smaller towns (25,000-50,000 Census 1931)	51
London (Administrative County)	57
Deaths from Measles (all ages)	0
Deaths from Whooping Cough (all ages)	0
Deaths from Diarrhœa (under 2 years of age)	0
Deaths from Cancer (all ages)	20

Since the Urban District was constituted in 1933 there has been one death from Measles, one from Whooping Cough and one from Diarrhœa (under 2 years of age).

Causes of Death.

	All Causes.	Males	Females	Total
1.	Typhoid and Paratyphoid Fevers	—	—	—
2.	Measles	—	—	—
3.	Scarlet Fever	—	—	—
4.	Whooping Cough	—	—	—
5.	Diphtheria	1	2	3
6.	Influenza	—	—	—
7.	Encephalitis Lethargica	—	—	—
8.	Cerebro-spinal Fever	—	—	—
9.	Tuberculosis of Respiratory System	2	5	7
10.	Other Tuberculous Diseases	—	2	2
11.	Syphilis	—	—	—
12.	General Paralysis of the Insane, Tabes Dorsalis	1	—	1
13.	Cancer, Malignant Disease	11	9	20
14.	Diabetes	2	1	3
15.	Cerebral Hæmorrhage, &c.	5	10	15
16.	Heart Disease	22	24	46
17.	Aneurysm	—	—	—
18.	Other Circulatory Diseases	2	6	8
19.	Bronchitis	3	—	3
20.	Pneumonia (all forms)	2	2	4
21.	Other Respiratory Diseases	2	—	2
22.	Peptic Ulcer	1	—	1
23.	Diarrhœa, &c. (under 2 years)	—	—	—
24.	Appendicitis	1	—	1
25.	Cirrhosis of Liver	—	—	—
26.	Other Diseases of Liver, &c.	—	1	1
27.	Other Digestive Diseases	1	—	1
28.	Acute and Chronic Nephritis	—	1	1
29.	Puerperal Sepsis	—	—	—
30.	Other Puerperal Causes	—	1	1
31.	Congenital Debility, Premature Birth, Malformation, &c.	5	2	7
32.	Senility	4	2	6
33.	Suicide	—	—	—
34.	Other Violence	4	1	5
35.	Other Defined Diseases	—	6	6
36.	Causes Ill-defined or Unknown	—	—	—
37.	Diarrhoea (2 years and over)	—	—	—
	Special Causes (*included in No.* 35 *above*)			
	Smallpox	—	—	—
	Poliomyelitis	—	—	—
	Polio-encephalitis	—	—	—
	Totals - -	69	75	144

Hospitals provided or subsidised by the Local Authority or by the County Council—*See under North-West Cheshire p. 17.*

List of Adopted Acts, Bye-Laws and Regulations.

ADOPTED ACTS AND CONFERRED POWERS.

1. The Council have all the powers and are subject to all the duties conferred or imposed upon an Urban District Council by the general law. (M. of H., 1st Aug., 1933).
2. The Private Street Works Act, 1892.
3. Infectious Diseases (Prevention) Act, 1890.
4. The Public Health Acts Amendment Act, 1890. (Parts III. and IV.)
5. The Public Health Acts Amendment Act, 1907—

   Part II. (streets and buildings) other than sections 21, 24, 25, 30 and 31.

   Part III. (sanitary provisions) other than section 51.

   Part IV. (infectious diseases) other than sections 61, 66, 67 and 68.

   Part V. (common lodging-houses).

   Part VI. (recreation grounds) ; and

   Sections 92 and 94 comprised in Part X. (miscellaneous provisions).
   (subject to certain conditions mentioned in Ministry of Health Order 79322 (1934).
6. The Public Health Act, 1925—

   Parts II. (excluding Sections 21, 22 and 24), III. and IV ; and

   Part VI. (recreation grounds).
7. Small Dwellings Acquisition Acts, 1899-1923.
8. Slaughter of Animals Act, 1933.

   The Council have contracted into the Act (vide Min. 773, 4th Dec., 1933) so that the Act shall apply to all the animals designated therein.

Bye-Laws.

For the Regulation of Offensive Trades, made 8th January, 1925.

	Made	Confirmed	Commencement
New Streets and Buildings	7/10/35	20/1/36	1/5/36
Nuisances	7/10/35	9/1/36	1/3/36
Slaughterhouses	7/10/35	20/1/36	1/3/36
Smoke Abatement ...	7/10/35	9/1/36	1/3/36
Tents, Vans, Sheds and similar Structures ...	Draft Bye-Laws informally approved by the Ministry of Health.		

(8) With respect to Buildings and certain matters in connection therewith, made 12th January, 1925.

(9) For the Regulation of Offensive Trades, made 8th January, 1925.

Sanitary Circumstances of the Area.

WATER.—West Cheshire (softened) supply.

	Chemical Results in parts per 100,000
Appearance	Clear and bright
Colour	Normal. Odour, none
Reaction pH	Neutral 7.4. Free Carbonic Acid—1.3
Electric Conductivity at 20 deg. C. ...	690
Total Solids, 180 deg. C.	46.0
Chlorine in Chlorides	8.8
Nitrogen in Nitrates	0.00 Nitrites absent
Hardness : Permanent	0.0 Grains per gallon
Temporary	8.0 ,, ,, ,,
Total	8.0 ,, ,, ,,
Metals	Iron 0.003
Free Ammonia	0.0000
Albuminoid Ammonia	0.0000
Oxygen absorbed in 4 hrs. at 80 deg. F. ...	0.0000

	Bacteriological Results.
No. of Bacteria per cc.	
On Agar in 3 days at 20 deg. C. ...	3
On Agar in 1 day at 37 deg. C.	0
The Bacillus Coli	Absent in 100 cc.
Bacillus Welchii ... ... (B. Enteritidis Sporogenes)	Absent in 100 cc.

REPORT.—This is a clear and bright water of normal colour and neutral reaction. It is of moderate hardness, contains no excess of saline matter, and is free from metals apart from a negligible trace of iron.

Both organically and bacteriologically, the water is of the highest standard of purity and is pure and wholesome, suitable, therefore, for Public Supply purposes.

RIVERS AND STREAMS.—There has been no marked fouling of streams.

PUBLIC CLEANSING.—The collection and disposal of refuse is supervised by the Sanitary Department.

The refuse is collected by eight men with two Shelvoke and Drewry 10 cubic yard freighters and is disposed of by controlled tipping at Thurstaston Road, Irby and Brimstage Road, Barnston. The latter tip is now almost filled and arrangements have been made to use another site in the vicinity.

During the year the average number of bins collected each week has risen from 4,320 to 4,747.

The district is divided into two collection areas, and is set out on the continuous system in one district, and partly on that system in the other.

The following figures, showing the cost of this service, will be found to compare very favourably with those prepared by other Authorities :—

	Wirral Urban District Council.		Average for U.D. Seaside Holiday Resorts.
*Weight per 1,000 population per day ...	12.3 cwts	...	18.2 cwts.
***Net expenditure per ton**—Collections ...	12s. 7d.	...	9s. 0d.
Disposal ...	2s. 10d.	...	3s. 5d.
Total ...	15s. 4d.	...	12s. 5d.
Total net expenditure per ton, excluding loan charges and expenditure for new plant out of revenue	12s. 1d.	...	10s. 5d.

		Wirral Urban District Council.	Average for U.D. Seaside Holiday Resorts.
Net expenditure per 1,000 population per annum :	Collection	£142	£150
	Disposal	£ 32	£ 57
	Total	£173	£207
Net expenditure per 1,000 premises per annum :	Collection	£408	£453
	Disposal	£ 90	£170
	Total	£498	£623

Average weight per bin over the whole year :—27.42 lbs.

Rate in £—		
	Collection	3·87d.
	Disposal	.86d.
	Total	4.72d.

*—Weight is based on test weighings every quarter (7.7% weighed thus).

DRAINAGE AND SEWERAGE.—Parts of Heswall, Irby, Pensby and Thurstaston are sewered to the North Wirral Outfall, parts of Heswall, Irby, Pensby and Barnston to the Fender Valley Sewer, Gayton and part of Heswall to the Dee.

The following extracts are specially worthy of note in this rapidly urbanising district :—

The building of houses outside the range of existing sewerage systems frequently results in insanitary conditions and compels the Authority either to extend their sewerage systems at a cost wholly disproportionate to the rateable value of the dwellings concerned or to undertake the regular emptying of cesspools. We call attention to the provisions, in sections 12 and 19 (1) (*e*) of the Town and Country Planning Act, 1932, under which provisions may be included in a planning scheme for the control of such building. (Report of Committee on Local Expenditure 1932).

Under section 15 of the Public Health Act, 1875, it is the duty of every Local Authority to cause to be made such sewers as may be necessary for effectually draining their district for the purposes of the Act. This duty extends, however, only to the provision of sewers to serve existing houses. It has been held in the Courts that there is no legal obligation on a Local Authority to provide sewers in anticipation of or to facilitate building development. (Ministry of Health Report 1934-35).

In this connection attention may be drawn to the Romford Urban District Council Act, 1931, which provided that if the Urban District Council resolved that the construction of a sewer in a highway repairable by the inhabitants at large will increase the value of the premises fronting the street, they may recover the cost from the frontagers, following the procedure of the Private Street Works Act, 1892. Similar powers have been granted since to other Local Authorities.

SWIMMING BATHS AND POOLS.—There are no public baths. Some enthusiasts bathe in the Dee Estuary.

ERADICATION OF BED BUGS.

(1) The number of—

(*a*) Council houses,

(i.) Infested	Nil
(ii.) Disinfested	Nil

(*b*) Other houses,

(i.) Infested	Nil
(ii.) Disinfested	Nil

(2) The method employed for freeing infested houses from Bed Bugs

(3) The methods employed for ensuring that the belongings of tenants are free from vermin before their removal to Council houses :—
Does not apply.

(4) Whether the work of disinfestation is carried out by the Local Authority or by a Contractor :—
Would be carried out by Local Authority.

(5) The measures taken by way of supervision or education of tenants to prevent re-infestation after cleansing :—
Does not apply.

Sanitary Inspection of the Area.

The Inspector supplies the report :—

Tabular Summary of the Work of the Public Health Department for the year ending 31st December, 1938.

A.		B. Notices Served		C. Result of Service of Notices.			
						Prosecutions.	
Nature of Inspections.	Number.	Statutory.	Informal.	Complied with	Remaining in Hand.	Instituted.	Pending.
Dwelling Houses (First inspection) ...	200	3	153*	33	153*	—	—
Dwelling Houses (Re-visit)	762	—	18	—	20	4	—
Overcrowding Survey	948	—	—	40	—	—	—
Tents, Vans and Sheds	839	—	—	—	—	—	—
Courts, Yards and Passages	6	15	—	15	—	—	—
Offensive Accumulations	22	2	5	7	—	—	—
Smoke Observations	17	—	—	1	—	—	—
Rats and Mice	13	1	—	1	—	—	—
Miscellaneous Nuisances	27	—	—	—	—	—	—
Ditches and Watercourses	86	4	—	2	3	—	—
Privies, Middens, etc.	6	—	—	—	—	—	—
House Drainage	9	10	—	10	—	—	—
Cesspools, Septic Tanks, etc.	15	1	1	1	1	—	—
Refuse Collection...	98	—	—	—	—	—	—
Refuse Disposal	362	—	—	—	—	—	—
Ashpits, Bin, etc.	189	91	1	79	13	—	—
Private Slaughter Houses	575	—	—	—	—	—	—
Factories and Workshops	7	—	—	—	—	—	—
Bakehouses	60	1	—	4	—	—	—
Other Food Preparing Premises ...	51	—	—	—	—	—	—
Cowsheds and Dairies	195	—	—	—	—	—	—
Keeping of Animals	31	1	—	1	—	—	—
Milk Sampling	47	—	—	—	—	—	—
Water Sampling	19	—	—	—	—	—	—
Infectious Disease Inquiries	114	—	—	—	—	—	—
Miscellaneous Visits	21	15	—	15	—	—	—
Total Sanitary Visits	4719						
A.R.P. Visits	1137						
Total	5856	144	178	209	191	4	—

* 153 "Making of a Clearance Order." Notices Served in respect of 16 Clearance Areas.

SCHOOLS.—All the schools are on the main water supply and are provided with lavatory basins and proper sanitary conveniences.

1. Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises (1)	Number of Inspections (2)	Written Notices. (3)	Occupiers Prosecuted (4)
Factories with mechanical power	—	—	—
Factories without mechanical power	67	1	—
* Other Premises under the Act (including works of building and engineering construction but not including outworkers' premises... ...	—	—	—
Total	67	1	Nil

2. Defects found in Factories, Workshops and Workplaces.

Particulars. (1)		Number of Defects Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	N'ber of Offences in respect to which Prosecutions were instituted. (5)
Want of cleanliness		—	—	—	—
Overcrowding		—	—	—	—
Unreasonable temperature		—	—	—	—
Inadequate ventilation		1	1	—	—
Ineffective drainage of floors		—	—	—	—
Sanitary Conveniences	insufficient	—	—	—	—
	unsuitable or defective ...	—	—	—	—
	not separate for sexes ...	—	—	—	—
Other offences ... ... (Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937).		1	4	—	—
Total		2	5	Nil	Nil

Number of Tents, Vans, Sheds and Similar Structures in the District for the year ending December 31st, 1938.

Ward	Vans, Sheds, etc.		Tents (April to Sept.)
	Occupied Permanently	Occupied Casually	
Barnston... ...	9	2	—
Gayton	—	—	—
Heswall	14	62	30
Irby...	6	40	28
Pensby	—	—	—
Thurstaston ...	5	18	53
Totals - -	34	122	111

Houses Completed 1938.

Heswall.	Gayton.	Thurstaston.	Irby.	Barnston.	Pensby.	Total.
99	17	—	44	35	59	254

Housing Statistics.

1. **Inspections of Dwelling Houses during the year :—**

(1) (*a*) Total number of houses inspected for housing defects (under Public Health or Housing Acts) 210

(*b*) Number of inspections made for the purpose 978

(2) (*a*) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 6

(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 7

(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects fit for human habitation 2

2. **Remedy of Defects during the Year without Service of Formal Action :—**

Number of dwelling houses rendered fit in consequence of informal action	6

3 **Action under Statutory Powers during the year :—**

A. Proceedings under sections 9, 10 and 16 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which notices were served requiring repairs	4
(2) Number of dwelling houses which were rendered fit after service of formal notices :—	
(*a*) By owners	9
(*b*) By Local Authority in default	Nil

B. Proceedings under the Public Health Acts.

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	7
(2) Number of dwelling houses in which defects were remedied after service of formal notices :—	
(*a*) By owners	7
(*b*) By Local Authority	Nil

C. Proceedings under sections 11 and 13 of the Housing Act, 1936.

(1) Number of dwelling houses in respect of which Demolition Orders were made	13
(2) Number of dwelling houses demolished in pursuance of Demolition Orders	8

D. Proceedings under section 12 of the Housing Act, 1936.

(1) Number of separate tenements and underground rooms in respect of which Closing Orders were made	Nil

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been made fit ... ... Nil

4. **Housing Act, 1936 Part IV. (Overcrowding).—**

A. (1) Number of dwellings overcrowded at the end of the year 7

(2) Number of families dwelling therein 7

(3) Number of persons dwelling therein 58

B. Number of new cases of overcrowding reported during the year ... ... Nil

C. (1) Number of cases of overcrowding relieved during the year 4

(2) Number of persons concerned in such cases ... 36

D. Number of persons in such cases again overcrowded after L.A. abating them ... ... Nil

E. Additional Information :—A licence was granted to the owner-occupier of a house to exceed the permitted number by one-and-a-half units.

Inspection and Supervision of Food.

(*a*) Milk Supply.—There are 23 cowkeepers and 33 retail dairymen in the district. The latter include 4 dairymen whose premises are situate outside the district.

The reducing of the licence fees to one half of that which the Council are entitled to charge under the Milk (Special Designations) Order, 1936, did not have the desired effect of increasing the number of dairymen selling these milks. In an endeavour to encourage the sale of these milks the Council have decided to dispense with the charging of fees.

The following licenses have been granted under the Order during the year :—

" Tuberculin Tested "—	
Dealers Retailing Licence	6
Supplementary Retailing Licence ...	1
Dealers Bottling Licence	1
" Accredited "—	
Dealers Bottling Licence	2
" Pasteurised "—	
Supplementary Retailing Licence ...	3

During the year early morning visits have been paid to the farms whilst milking was in progress, and there is a definite endeavour on the part of the farmers to produce a cleaner milk.

Samples of milk were taken from each producer and from each known source of supply milk being retailed in the district during the year.

Each of the samples, whether of designated or of ordinary milks,were examined by means of the Methylene Blue Reduction Test, and the Coliform Organisms test, and for Tuberculosis by animal inoculation into two guinea pigs.

In addition, the Biological Institute which examined the samples, submitted reports on the number of bacteria present in each sample, and these are included in the table given on next page.

Description of Milk	Samples Produced		Methylene Blue Reduction Test		Coliform Organisms Test		Average Number of Bacteria per ml.	Positive Tuber-culosis
	In District	Outside District	Passed	Failed	Passed	Failed		
Tuberculin Tested ...	—	1	1	—	1	—	18,200	—
Accredited	18	—	16	2	11	7	81,530	2
Do, ...	—	7	6	1	4	3	163,780	1
Pasteurised...	—	1	1	—	1	—	680	—
Ordinary	13	—	11	2	7	6	31,930 (+ 2 uncountable)	—
Do. ...	—	2	1	1	—	2	11,200 (+ 1 uncountable)	—
Total	31	11	36	6	24	18	71,320	3

This gives 18 out of 28, or 64% which passed the prescribed tests of the Milk (Special Designations) Order, 1936, as compared with 87.5% last year ; and 3 out of 43, or 7% which showed evidence of Tuberculosis, as compared with 4.13% last year.

(*b*) MEAT.—The carcases of all animals slaughtered for food are examined prior to sale to the public, in accordance with the Public Health (Meat) Regulations, 1924. A total of 5,227 lbs. was found to be unfit for human consumption and condemned. The condemnation was due to Tuberculosis in 4,517 lbs.

Carcases Inspected and Condemned.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number Killed	225	12	153	1870	347
Number Inspected	225	12	153	1870	347
All diseases except Tuberculosis:					
Whole carcases condemned....	—	—	—	—	1
Carcases of which some part or organ was condemned...	19	1	2	36	30
Percentage of the number inspected affected with disease other than Tuberculosis—					
Generalised ...	—	—	—	—	.29
Localised ...	8.44	8.33	1.31	2.14	—
Total ...	8.44	8.33	1.31	2.14	.29
Tuberculosis only:					
Whole carcases condemned ...	2	3	1	—	1
Carcases on which some part or organ was condemned ...	28	4	1	—	31
Percentage of the number inspected affected with Tuberculosis ... Generalised ...	.89	25.	.65	—	.29
Localised ...	12.44	50.00	.65	—	8.33
Total ...	13.33	75.00	1.31	—	9.13

SLAUGHTER HOUSES.—

	Dec. 1938
Registered	1
Licensed	—

There are twelve purveyors of meat in the district.

Meat is hawked from butchers' carts from neighbouring areas.

Sale of Food and Drugs Acts.

Particulars of Samples forwarded to the Public Analyst from the district during the year ending 31st December, 1938.

Name of Sample.	Number Analysed.	Number of Samples Certified as Adulterated or not up to Standard.
Bi-carbonate of Soda	1	—
Boracic Ointment	1	—
Butter	1	—
Cheese (Cheshire)	1	—
Fish Paste	1	—
Flowers of Sulphur	1	—
Fruit, dried	1	—
Glycerine	1	—
Lard	1	—
Liquid Paraffin	1	—
Liquorice Powder	1	—
Milk	12	—
Oil of Wintergreen	1	—
Olive Oil	2	—
Seidlitz Powder	1	—
Suet, shredded	1	—
Sulphur Tablets	1	—
Whisky	2	—
Zinc Ointment	1	—
Total - -	32	—

Prevalence of, and Control over, Infectious Diseases.

Infectious Diseases Generally.

The prevalence of infectious diseases in the years 1933 - 38 is shown in the following table which gives the case rate per 1,000 of the population.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia	Erysipelas.
1933	0.00	*1.2	*0.25	0.00		0.40
1934	0.00	*1.7	*1.12	0.18		0.18
1935	0.00	*1.3	*1.1	0.00		6.4
1936	0.00	1.67	*0.44	0.00		0.44
1937	0.00	*0.90	*0.90	0.00	1.47	0.24
1938	0.00	*2.84	*1.65	0.15	0.63	0.07

*—(This does not include the cases in Heswall Children's Hospital, or the Cleaver Sanatorium, or in Pensby Convalescent Home which were not connected with local conditions).

The following table shows the corresponding rates for England and Wales.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Erysipelas.
1933	0·02	3.21	1.18	0.04		0.45
1934	0.04	3.76	1.70	0·03		0.51
1935	0.00	2.96	1.6	0.04		0-42
1936	0.00	2.53	1.39	0.06		0.40
1937	0.00	2.33	1.49	0.05	1.36	0.37
1938	0.00	2.41	1.58	0.03	1.10	0.40

The Registrar-General states that the rate for puerperal pyrexia is better stated in relation to the number of births registered than to the population. On this basis the Puerperal Pyrexia rate for England and Wales is 14.42 per 1,000 Total Births. The Wirral Puerperal Pyrexia rate calculated on the same basis is 0.00

Distribution of Cases of Infectious Diseases notified during the year.

Disease.	District.									
	Barnston	Gayton	Heswall	Irby	Pensby	Thurstaston	Royal Liverpool Children's Hospital	Cleaver Sanatorium	Convalescent Home Pensby	TOTAL
Scarlet Fever	6	3	22	2	3	1	3	—	3	43
Diphtheria	2	2	17	2	—	—	14	5	8	50
Enteric Fever	—	—	1	1	—	—	—	—	—	2
Pneumonia	—	—	4	2	1	1	—	—	—	8
Erysipelas	—	—	—	—	1	—	—	—	—	1
Puerperal Pyrexia ...	—	—	—	—	—	—	—	—	—	0
Dysentery	—	—	—	—	—	—	27	—	—	27
Totals	8	5	44	8	4	2	44	5	11	146

Notifiable Diseases during the year 1938.

Disease.	Total Cases Notified.	Total Cases Admitted to Hospital.	Total Deaths.
Smallpox	—	—	—
Scarlet Fever	43	32	—
Diphtheria	50	45+ 1 neg.	3
Enteric Fever	2	1	—
Puerperal Pyrexia	—	—	—
Pneumonia	8	4	4
Erysipelas	1	1	—
Cerebro-Spinal Fever ...	—	—	—
Acute Poliomyelitis ...	—	—	—
Acute Polio-encephalitis ...	—	—	—
Encephalitis Lethargica ...	—	—	—
Dysentery	27	—	—
Malaria	—	—	—
Chickenpox	—	—	—
Totals -	131	83 + 1 neg.	7

Tuberculosis.

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
Years	M.	F.	M.	F.	M.	F.	M.	F.
0- 1	—	—	—	—	—	—	—	—
1- 5	—	—	—	—	—	—	—	—
5-10	—	—	—	2	—	—	—	1
10-15	—	—	1	—	—	—	—	—
15-20	—	—	—	—	—	—	—	—
20-25	1	1	—	—	—	—	—	—
25-35	1	—	—	—	1	1	—	1
35-45	1	—	—	—	1	1	—	—
45-55	1	1	—	—	—	1	—	—
55-65	1	—	—	—	—	1	—	—
65 and upwards ...	—	—	—	—	—	1	—	—
Totals ...	5	2	1	2	2	5	—	2

Table of Age Groups Showing Total Cases Notified and Deaths, 1938.

Disease.			Total.		0-1		1-2		2-3		3-4		4-5		5-10		10-15		15-20		20-35		35-45		45-65		65 up	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total Cases		131	72	59	2	...	1	3	6	5	4	2	5	5	29	24	16	5	4	7	3	4	...	3	2	1	...	—
Total Deaths		7	3	4	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	1	2	1	...	—
Smallpox	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	Cases	43	22	21	...	...	...	...	2	2	1	1	...	1	11	11	4	3	2	1	2	1	...	1	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	Cases	50	23	27	...	...	...	3	1	..	2	1	2	3	10	12	6	2	2	4	...	2	...	...	...	...	...	...
	Deaths	3	1	2	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	Cases	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	Cases	8	4	4	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	2	2	...	...	...
	Deaths	4	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...
Erysipelas	Cases	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis ...	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Polio-encephalitis	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentry	Cases	27	22	5	2	...	1	...	3	3	1	...	1	1	8	1	6	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

1938.

	Cases.			Vision unimpaired	Vision impaired	Total blindness	Deaths
	Notified	Treated.					
		At Home.	In Hospital.				
OPHTHALMIA NEONATORUM	Nil	Nil	Nil	Nil	Nil.	Nil.	Nil.

EVANS, PRINTERS, CHESTER